Service Manual

ViewSonic P95f

Model No. VCDTS21682-1

19" Digital Controlled Color Monitor
(18" viewable) Professional Series

(P95F_SM_ - Rev. 1 – December 2000)

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Revision History

Revision	Date	Description Of Changes	Approval
1.0	12/12/00	Initial Issue – DCN995	T. Sears

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FCC Statement

This equipment has been tested and found to comply with the limits of Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and for if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause unacceptable interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of following measures

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the into an outlet on circuit different from that to which the receiver is connected.
- Consult the dealer or an experience radio/TV technician for help.

FCC Warning

To assure continued FCC compliance, the user must a grounded power supply cord and the provided shielded video interface cable with bonded ferrite cores. Also, unauthorized changes or modifications to ViewSonic products will void the user's authority to operate this device. Thus ViewSonic will not be held responsible for the product and its safety.

CE Certification

CE this device complies with the requirements of the ECC directive 89/3366/EEC with regard to "Electromagnetic compatibility."

Safety Guidelines

Caution: Use a power cable that is properly grounded. always use the AC cords listed below for each area

USA	(UL)
Canada	(CSA)
Germany	(VDE)
Switzerland	(SEV)
Britain	(BASE/BS)
Japan	(Electric Appliance Control Act)

In other areas, use AC cord which meets the local safety standards.

Chapter 1 Features

1.1. On-View on-screen-display digital controlled

1.1.1. User friendly 4-key control and On Screen Display for finest screen adjustment:

- CONTRAST
- BRIGHTNESS
- H-SIZE
- H-POSITION
- V-SIZE
- V-POSITION
- PINCUSHION
- PIN-BALANCE
- TRAPEZOID
- PARALLELOGRAM
- ZOOM
- TILT
- CONVERGENCE
- V-LINEARITY
- HOOKING
- COLOR
- PURITY
- OSD POSITION
- MOIRE
- DEGAUSS
- LANGUAGE
- DATA RECALL

1.1.2. Factory geometric settings for 12 preset timings.

1.1.3. Geometric settings for 6 user definable timings.

1.1.4. Factory setting for Color Temperature modes (5000°K, 6500°K,9300°K).

1.1.5. Auto-tracking for stable synchronize system.

1.2. Power-line-input operating range

90~132Vac/60Hz or 180~264Vac/50Hz universal

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1.3. DPMS (Display Power Management System)

1.3.1. The P95f is compliant with Energy Star as well as VESA DPMS spec.

1.3.2. The power dissipation is less than 15 watts for Suspend/Standby mode and 3 watts for Off mode.

1.4. Operating Frequency range

The P95f provides wide operating ranges of horizontal frequency from 30 to 117KHz and Vertical frequency from 50 to 180Hz. This range makes the P95f to be compatible with most video timing standard such as VGA, SVGA, VESA, XGA, ... and etc. It supports up to 1024 x 768 @75Hz, 1280 x 1024 @75Hz and 1600 x 1200 @ 75Hz, 1600 x 1200 @ 85Hz and 1920 x 1440 @ 75Hz.

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Chapter 2 Specification

CRT	MITSUBISHI 19NF Diamondtron™, 90 degree deflection, Low Tinted, anti-Electrostatic, AR film, phosphor B22, Transmittance 41%, High Contrast
Signal Input Interface	Video: RGB analog 0.7Vp-p/75ohm (1Vp-p with sync) Sync: H.V. Separate Sync H.V. Composite Sync (TTL Compatible) Sync on green
Synchronization	Horizontal: 30 to 117KHz for analog input Vertical: 50 to 180Hz Non-interlaced/interlaced for analog input
Connector	Signal: 15pin mini D-sub Power: 3-pole receptacle
Video Bandwidth	200MHz nominal
Nominal Display Area	353x265mm
Power Supply	100 ~ 240 Vac Universal
Power Consumption	150W max.
Power Saving	Suspend ≤15W OFF ≤ 3W

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Chapter 3. Controls

Using the Monitor

Setting the Timing Mode

Setting the timing mode is important for maximizing the quality of the screen image and minimizing eye strain. The **timing mode** consists of the **resolution** (example 1280 x 1024) and **refresh rate** (or vertical frequency; example 75 Hz). After setting the timing mode, use the OnView® controls to adjust the screen image.

The recommended timing modes for this monitor are:
VESA 1280 x 1024 @ 85 Hz.

To set the Timing Mode:

1 Set the resolution: Right-click on the Windows® desktop > **Properties** > **Settings** > Desktop Area (Screen Area for Windows 95 and newer) > set the resolution.
2 Set the refresh rate: See your graphic card's user guide for instructions.

NOTE: To minimize the adjustments required for an optimal screen **image**, select a timing mode from the **Preset Timing Modes** table below.

Preset Timing Modes

VGA 640 x 400 @ 70 Hz	VESA 1280 x 1024 @ 85 Hz
VESA 800 x 600 @ 75 Hz	VESA 1600 x 1200 @ 75 Hz
VESA 800 x 600 @ 85 Hz	VESA 1600 x 1200 @ 85 Hz
VESA 1024 x 768 @ 75 Hz	VESA 1920 x 1440 @ 75 Hz
VESA 1024 x 768 @ 85 Hz	Macintosh 1024 x 768 @ 75 Hz
VESA 1280 x 1024 @ 75 Hz	Macintosh 1152 x 870 @ 75 Hz

WARNING: Do NOT set the graphics card in your computer to exceed the maximum refresh rate; doing so may result in permanent damage to your monitor.

Timing Modes with Maximum Refresh Rates

1920 x 1440 NI @ 77 Hz	1152 x 864 NI @ 125 Hz
1856 x 1392 NI @ 80 Hz	1024 x 768 NI @ 140 Hz
1792 x 1344 NI @ 83 Hz	800 x 600 NI @ 175 Hz
1600 x 1200 NI @ 92 Hz	640 x 480 NI @ 180 Hz
1280 x 1024 NI @ 107 Hz	

(NI = Non Interlaced)

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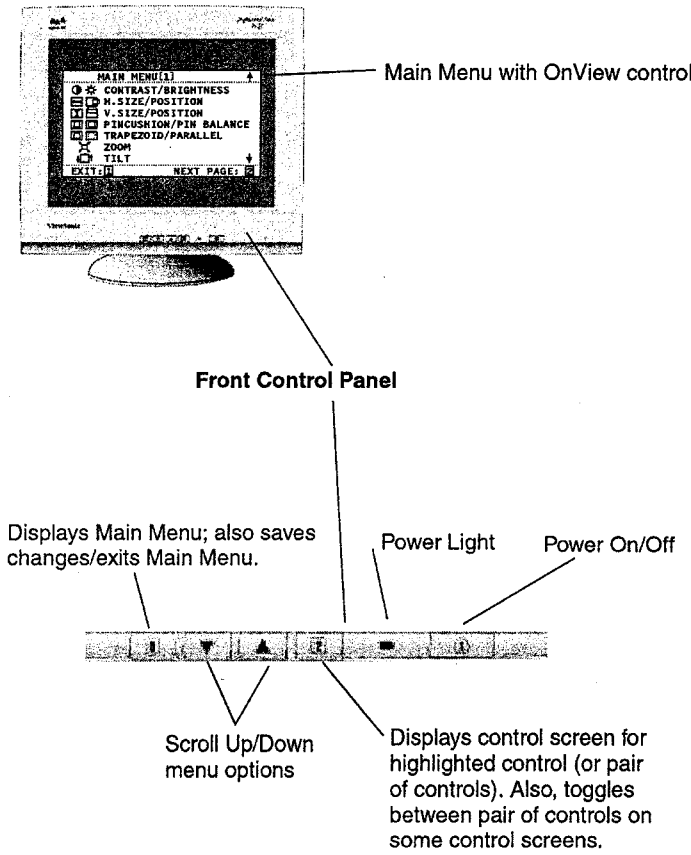
Adjusting the Screen Image

Beginning with the Main Menu shown below, use the buttons on the front control panel to adjust the OnView® controls which display on the screen. The OnView controls are explained in the four steps at the top of the next page and are further explained on pages 3-4 to 3-6.

IMPORTANT: The monitor should be warmed up for 30 minutes prior to making any adjustments.



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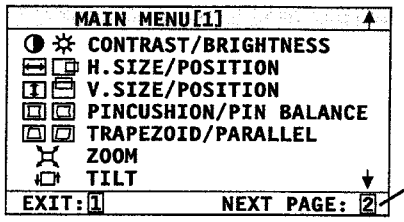
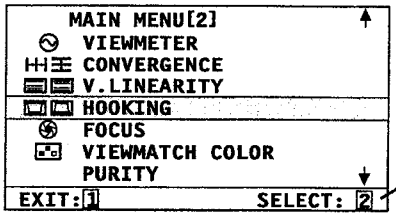
To adjust the screen image:

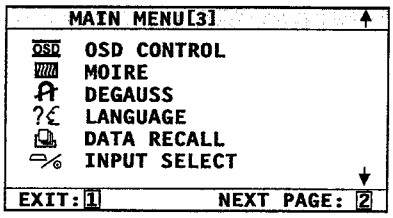
1 To display the Main Menu (parts 1-3 shown below), press button [1].



With Main Menu [1] highlighted, button [2] displays Main Menu [2].



With a control highlighted, button [2] displays a control screen for making adjustments.



2 To select a control you want to adjust, press the arrow buttons on the front control panel of your monitor (▼▲) and scroll through the choices. When the control you want to adjust is highlighted, press button [2].

NOTE: Some controls on the Main Menu are listed in pairs, such as Contrast/Brightness. Press button [2] to toggle between control pairs after displaying a control screen.

3 To adjust the selected control, press the arrow buttons (▼▲).

4 To save the control setting and Exit the menu, press button [1] *twice*.

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Main Menu Controls

The menu items shown below can be adjusted by using the arrow buttons (▲▼) on the front of your monitor.

Control	Explanation
	Contrast adjusts the difference between the image background (black level) and the foreground (white level). *Shortcut:* Before displaying the Main Menu, press ▼ or ▲ to display the Contrast/Brightness control screen.
	Brightness adjusts the background black level of the screen image.
	Horizontal Size adjusts the width of the screen image.
	Horizontal Position moves the screen image left or right.
	Vertical Size adjusts the height of the screen image.
	Vertical Position moves the screen image up or down.
	Pincushion straightens curves along the vertical edges of the screen image that bow inward or outward.
	Pin Balance straightens curves along the vertical edges of the screen image that bow in the same direction.
	Trapezoid makes the vertical edges of the screen image parallel.
	Parallel slants the vertical edges of the screen image.
	Zoom expands and contracts the entire screen image.
	Tilt rotates the entire screen image.
	ViewMeter® displays information about the video signal coming from your computer's graphics card. This includes the **refresh rate** (or Vertical Frequency) and the **scan rate** (or Horizontal Frequency).

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Control	Explanation (Continued)
	H. Convergence (Horizontal Convergence) adjusts vertical color alignment. Use this control when red or blue borders are present around the vertical segments of black letters on a white background.
	V. Convergence (Vertical Convergence) adjusts horizontal color alignment. Use this control when red or blue borders are present around the horizontal segments of black letters on a white background.
	V. Linear (Vertical Linearity Center) adjusts the vertical distortion at the center of the screen image. **NOTE:** Vertical Linearity Center is an advanced control and should be used for setup and calibration only.
	V. Linear Sym (Vertical Linearity Symmetry) minimizes the distortion (squeezing or stretching) images between the top and bottom of the screen image. **NOTE:** Vertical Linearity Symmetry is an advanced control and should be used for setup and calibration only.
	Top Hooking straightens the top corners of the screen image.
	Bottom Hooking straightens the bottom corners of the screen image.
	H Focus (Horizontal Focus) adjusts the sharpness of the screen image in the horizontal direction.
	V Focus (Vertical Focus) adjusts the sharpness of the screen image in the vertical direction.
	ViewMatch® Color provides several color options: three preset color temperatures and User Color, which allows you to adjust red (R), green (G), and blue (B). The factory setting for this product is 9300K (9300 Kelvin). **9300K** — Adds blue to the screen image for cooler white (often used in office settings with fluorescent lighting). **6500K** — Adds red to the screen image for warmer white and richer red. **5000K** — Adds blue and green to the screen image. **User Color** — Individual adjustments for red, green, and blue.

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Control	Explanation (Continued)
	Purity adjusts the uneven color of the overall image. For example, if one area of a color appears darker than another area, first use the degauss feature. If color is still uneven, use the purity control.
	Top Left adjusts uneven color at top left corner of screen.
	Top Right adjusts uneven color at top right corner of screen.
	Bottom Left adjusts uneven color at bottom left corner of screen.
	Bottom Right adjusts uneven color at bottom right corner of screen.
	OSD Control allows you to designate the Time, Position, Color, and Appearance of the on-screen menus and control screens.
	Moire reduces interference patterns that appear as ripples, waves, or unwanted background color textures. Interference patterns of this type are most noticeable when viewing images having closely spaced lines or finely detailed patterns.
	Degauss removes the build-up of magnetic fields that can cause irregular colors to appear around the edges of screen images. Your monitor will degauss **automatically** each time you power it on. To degauss your monitor **manually,** select Degauss on the on-screen menu and press button [2]. **Important:** *Do not degauss repeatedly. Doing so can be harmful to the monitor.* Wait at least 20 minutes before using this control again.
	Language allows you to choose from among several languages for the menus and control screens: English, French, German, Italian, and Spanish.
	Data Recall returns adjustments to the original factory settings if the product is operating in a Preset Timing Modes (see the table at the bottom of page 12). *Exception:* This control does not affect changes made with the **User Color** control.
	Input Select allows you to toggle between two video-signal sources (D-Sub and BNC).

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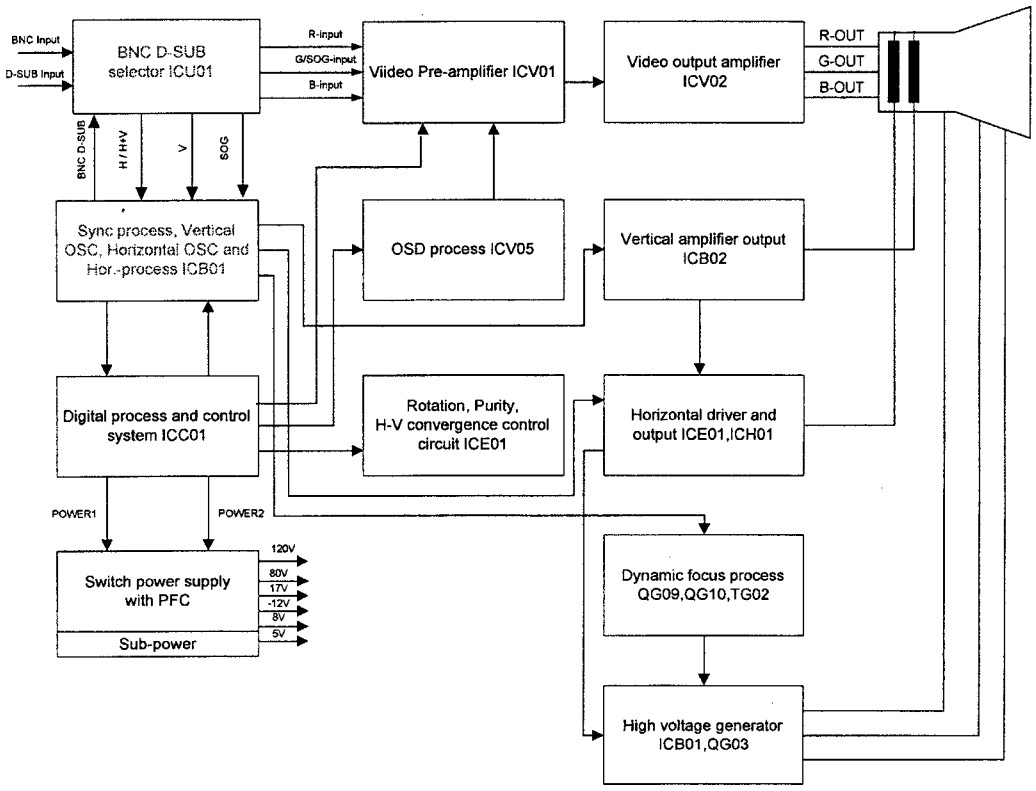
Chapter 4 Block Diagram



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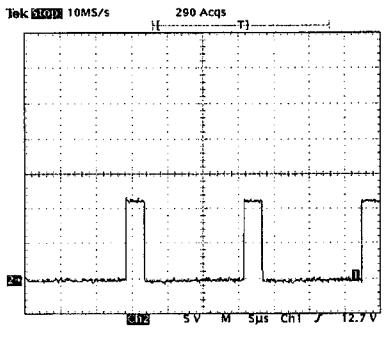
Chapter 5 Measured Waveform



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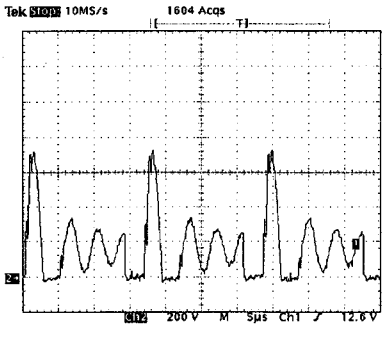

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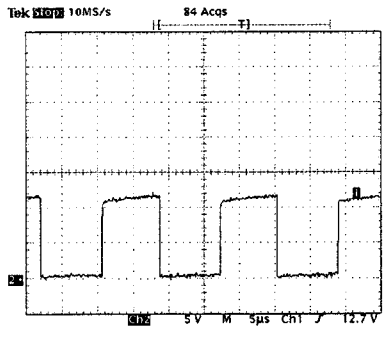

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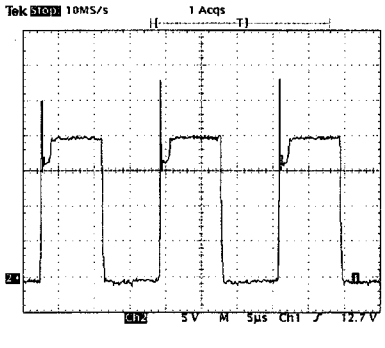

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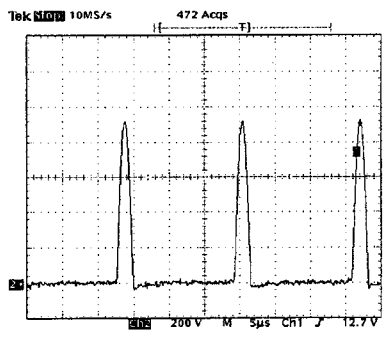

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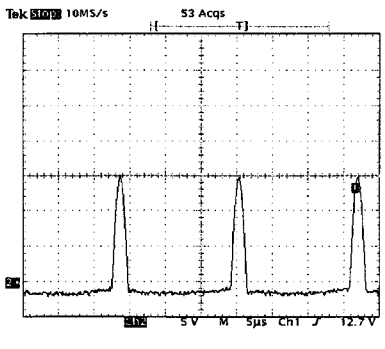

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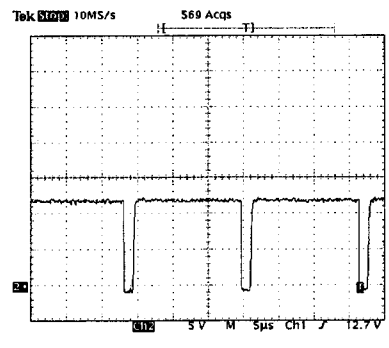

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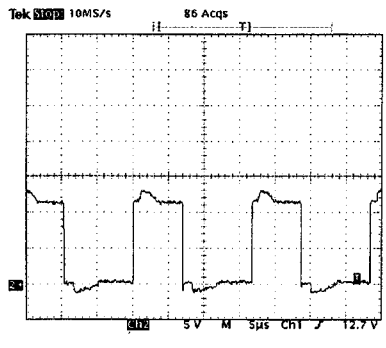

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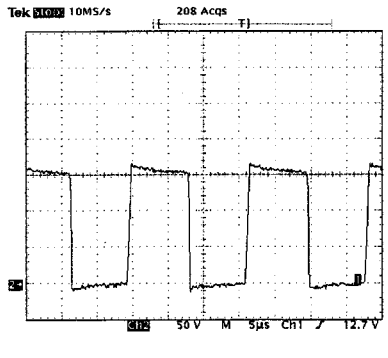

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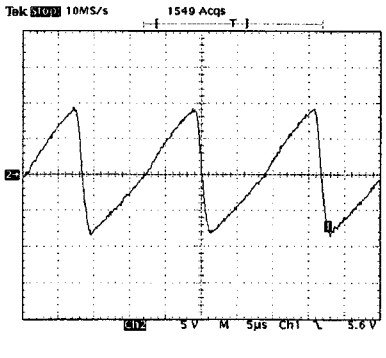

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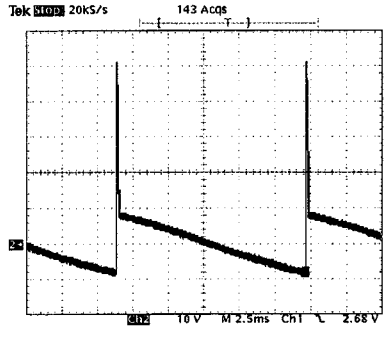

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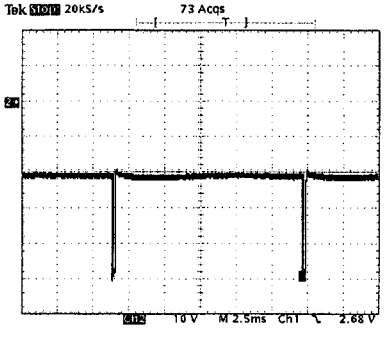

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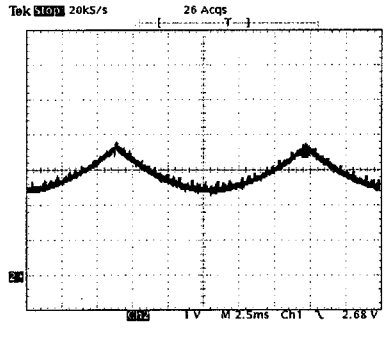

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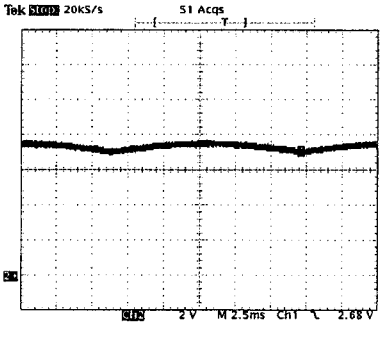

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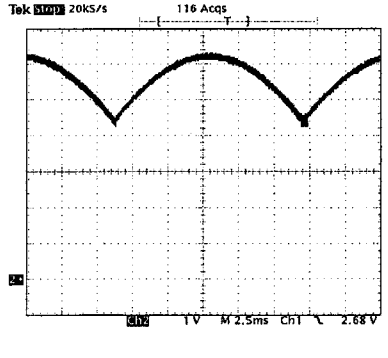

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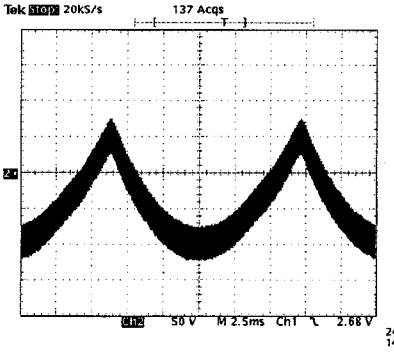

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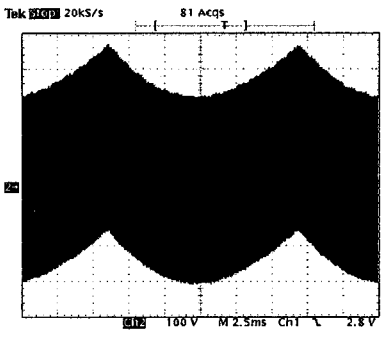

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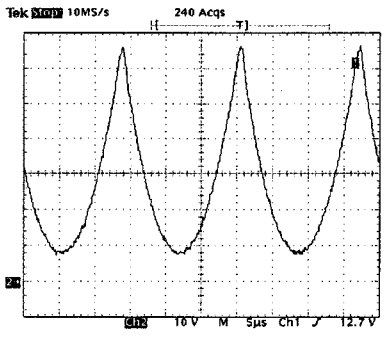

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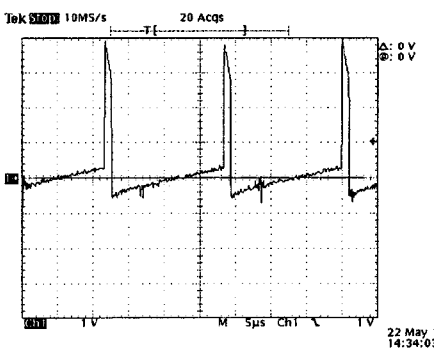

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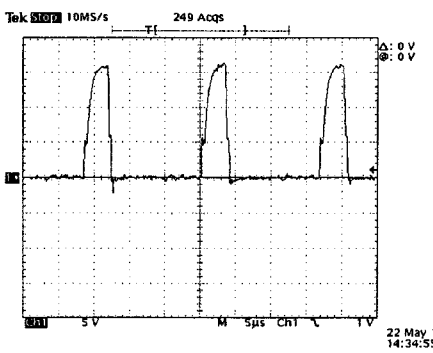

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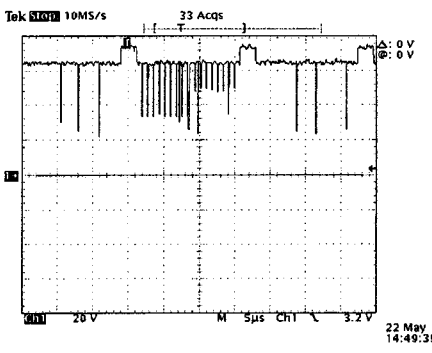

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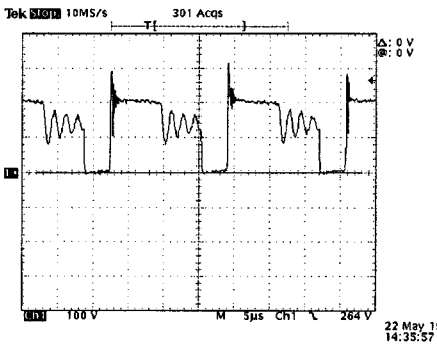

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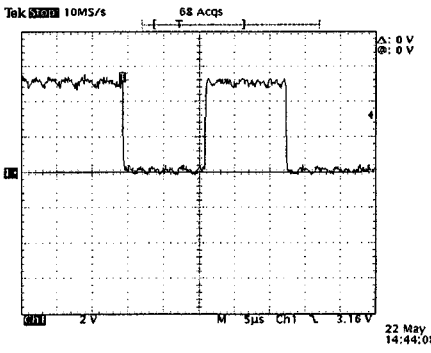
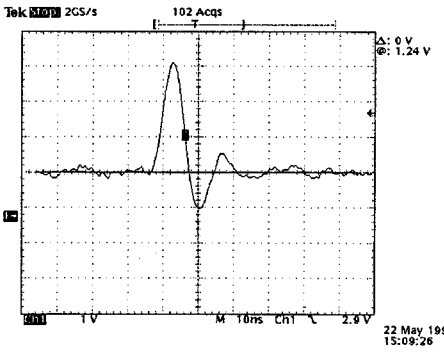


22 May 1997
14:44:08 **S23**



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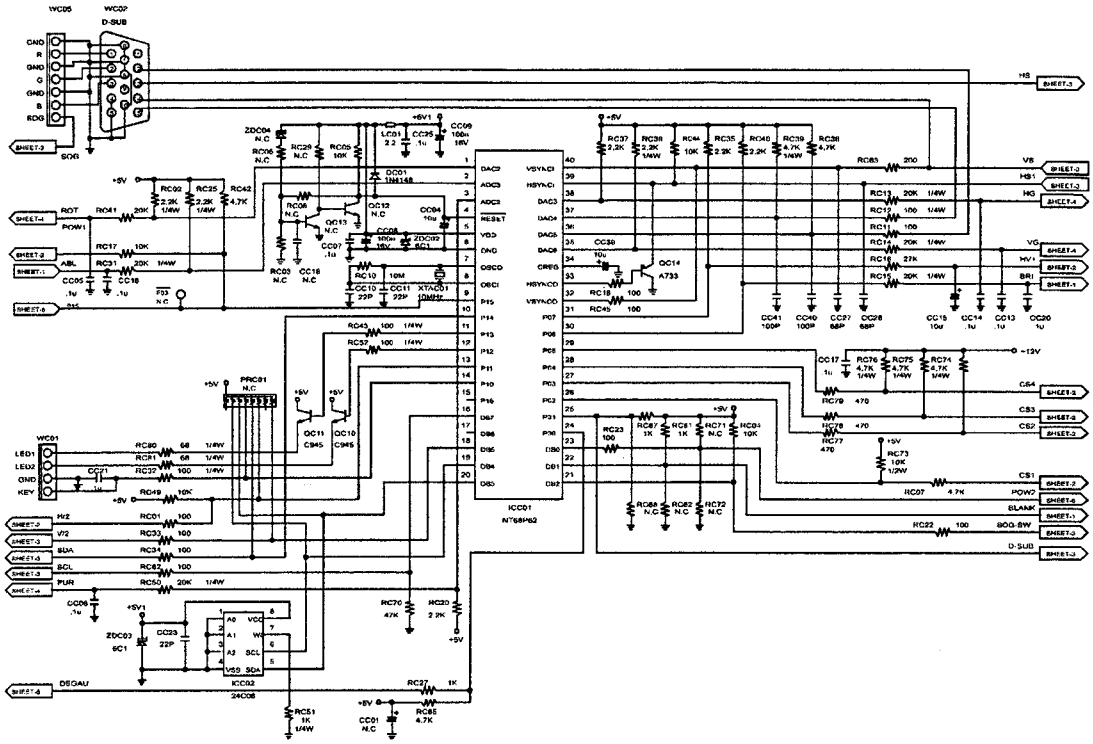
Chapter 6 Theory of circuit operation

6.1. Micro Controller System



The micro controller system is composed of the MCU, the serial E2PROM, the voltage monitor circuit, the encoder signal reshaping circuit.

6.1.1. The MCU (ICC01, NT68P62) mainly provides the following functions:

6.1.1-a. Detect the system input signals and send proper control signals via general purpose I/O pins.

6.1.1-b. Output 6 PWM's to adjust the voltage controlled functions such as BRIGHTNESS, TITL,..,etc.

6.1.1-c. Control the following characteristics of the deflection IC TDA4856 and the video pre-amp M52742ASP via I2C bus:

- **TDA4856:**
  1. H- SIZE,H-POSITION
  2. V-SIZE,V-POSITION
  3. PINCUSHION, PIN-BALANCE
  4. TRAPEZOID, PARALLELOGRAM
  5. H-CONVERGENCE, V-CONVERGENCE,
  6. V-LINE-CEN, V-LINE-SYM
  7. HOOKING

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8. MOIRE
9. HD-DUTY
10. Internal clamping pulse position & width

- **M52742ASP:**
  1. Contrast, OSD Contrast
  2. R,G,B gain

6.1.1-d. Control the OSD IC D1642 via IIC bus to display the monitor status.

6.1.1-e. Detect the input sync characteristics via TDA4856, identify the input timing, read the according settings in the E2PROM and then send proper controls such as CS-switch, LEDs display, Contrast, Brightness, H-Size, H-Pos, ..., etc.

6.1.1-f. Monitor the level of DAC output ABL and then send the proper contrast setting in M52742ASP to achieve the beam current limitation .

6.1.1-g. Set and detect the display board status and implement the ADC input KEY and signals..

6.1.1-h. Provide the DDC1/2B/2B+ interface to PC system or auto-alignment system.

The serial E2PROM ICC02 (24LC08) memory device to reserve the fixed monitor parameters, the factory alignment result, the user adjusting result, the user defined timing characteristics, ..., etc. While is only readable and optional to change the preset timing modes and/or their ID/name displayed on the OSD.

The propose of the voltage monitor circuit composed by DC01,RC05,CC04 is to keep the MCU working normal when the supply voltage is unstable. It is done by resetting the MCU while the supply voltage drops.

6.2. High Voltage Control Circuit

High Voltage Control Circuit is working basically by using switching theory with the main component ICB01 (TDA4856).

6.2.1. Circuit operating theory is explained as following:

6.2.1-a. When Power ON and the Vcc DC level of pin6 of ICB01 (TDA4856) exceeding 0.6V, ICB01 starts to work and the oscillate frequency is decided by RB25,RB26,CB10.

6.2.1-b. When ICB01 is working normally the output square wave of pin4 ***as figure S1*** will turn on QG03. The ON/OFF cycle of QG03 will make the primary of FBT (pin 1 ~2) acted like a Switching Power X'FMR ***as figure S2.***

6.2.1-c. AFC signal ***as figure S6*** is feed via RB01 to synchronize the oscillator of ICB01. Then, the high voltage will be always synchronized with horizontal deflection.

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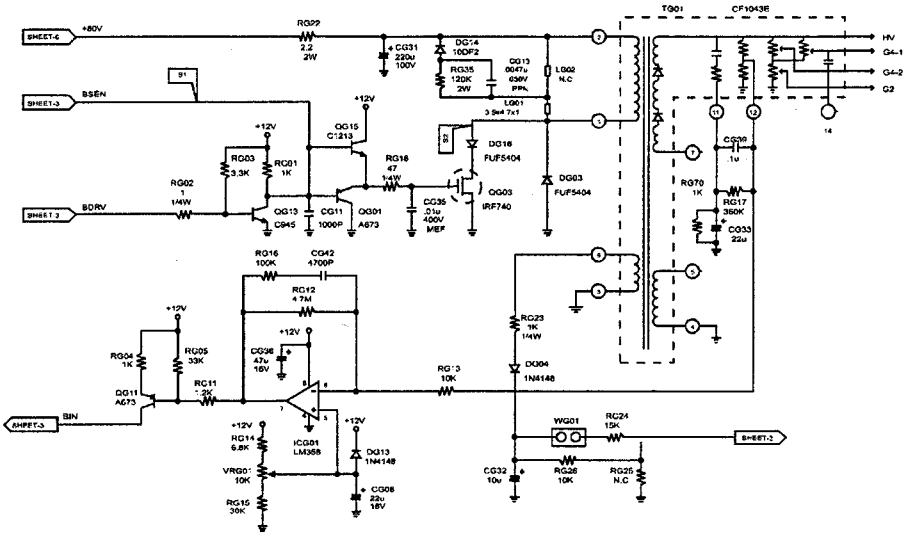
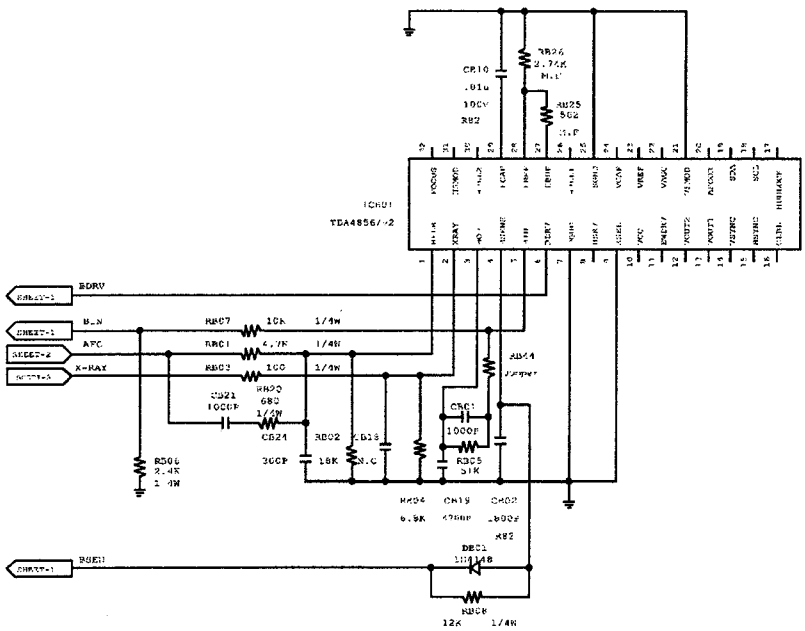
6.2.1-d. Usually loading change will cause unstable condition, so a high voltage feed back system is designed to maintain the stability of the high voltage circuit. This feed back system is started from voltage sensor on the pin11 of the FBT. The sensed voltage compares with the reference voltage on pin 5 of ICG01 and the difference is amplified then feed back to ICB01 to keep the HV stable.





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6.2.2. LM358 OP2 is controlled by following factors:

6.2.2-a. A feed back reference voltage circuit that consists of RG14, VRG01, and RG15 to adjust the high voltage.

6.2.2-b. When horizontal deflection is no function, there is no sensed current on TH02 and no voltage on CH07 (A1). Then ICG02 will pull down high voltage to protect CRT. After H-deflection circuit start to work properly, A1 voltage increases gradually and the output of ICG02 will become high to release the reference voltage of HV circuits. Then HV will raise up softly due to CG08.

6.3. X-RAY High Voltage Protection CKT

X-RAY High Voltage Protection CKT is to get a DC level voltage by utilizing the output waveform of FBT's pin6 to pin3 (GND) via a rectifier consists of DG04, CG32. This DC level voltage inputs to the pin2 (X-RAY) of ICB01 TDA4856. The preset X-RAY protection voltage is 6.4 volts. If the high voltage is higher than the preset voltage, the DC level voltage input into the pin2 will also be higher than 6.4 volts to make the pin8 of ICB01 off. It also means the HD signal is off, then horizontal deflection is off and the high voltage is also off.

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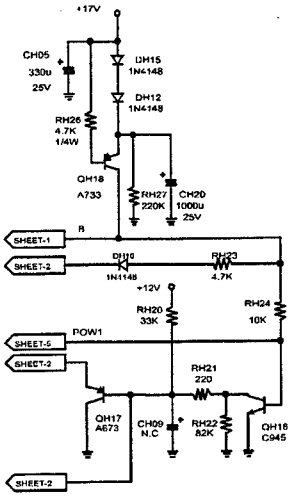
6.4. Soft-Start & Power Off Protection CKT & Suspend Control CKT



6.4.1. Soft-Start:

During the instant period of power on, unstable condition of horizontal deflection will easily damage components. So, Soft-Start is designed to control such an unstable condition.

When power on, during the period that 12 volts increases from 0 volts to 12 volts, the DC level of QH17 is controlled by RC Constant circuit RH20 and CH09.

QH17 controls the level at pin5 of ICH01 LM555. The width of the duty cycle at pin3 of ICH01 LM555 will be gradually increased. Till the CH09 is fully charged, QH17 is off is not working.

6.4.2. Power Off Protection CKT:

In order to turn off the B+ of horizontal deflection when power is off, QH18 are designed to meet the purpose.

When power off, the 17 volts decreases and the base level of QH18 is dropped. So QH18 is still on.

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6.4.3. Suspend Control CKT:

When entering Suspend Mode will send out a high level on POW1 to make:

6.4.3-a. QH16 is on and CH09 is discharge through QH16, then QH17 is on turns ICH01 and H-deflection B+ off. Since CH09 is discharge through QH16, the Soft-Start works when B is low level.

6.4.3-b. When H-deflection is turned off. A1signal will shut down HV circuit as described in sec. 6.2.2-b.

When monitor is from suspend back to normal mode, A1 is low level B and QH16 are off. The output is back to normal when CH09 makes Soft-Start worked and ICH01 is not controlled by QH17. So, Horizontal deflection and high voltage work normally.

6.5. Video-Amplifier/On-Screen-Display

The video amplifier system consists of the Pre-Amplifier, the Video-Power-Amplifier, and the Cutoff-Voltage-Adjusting circuits.

6.5.1. The functions of the Pre-Amplifier ICV01(M52742ASP) include:

6.5.1-a. The small signal video amplifier controlled by MCU via I2C bus for the features of contrast (main gain control), output DC level 3 sub gain controls (R-Gain, G-Gain, B-Gain), clamping pulse source (AFC) and the clamping pulse width.

6.5.1-b. The OSD mixer processes the OSD-BI, OSD-RI, OSD-GI on Pin4, 9, 13 and the OSD BKG input on Pin1 and the OSD contrast is controlled by MCU via I2C bus.

The Video-Power-Amplifier ICV02 is a 3-channel hybrid-IC which functions as a cascade type transistor amplifier to reach the high bandwidth performance.

The Cutoff-Adjusting circuit consist of ICV06, QV04, QV05, QV06 is to provide the function of dark/background white-balance control by varying the peak voltages on the CRT cathodes. (Only R, G, B guns)

ICV05 (D1642) serving as the OSD generator outputs the R, G, B, FBKG signals that contain the information by which the MCU shows the monitor's status and the user adjusting indications. The R, G, B, FBKG signals are synchronized by the horizontal and vertical deflection sync input on Pin5 and Pin10. The MCU controls the OSD via the signals SDA, SCL on pin7,8.

*(the schematic diagram refer **PFC Schematic section**)*

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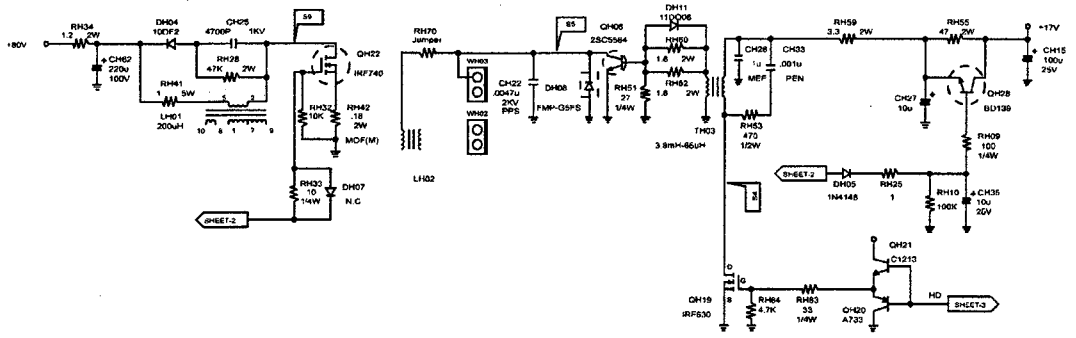
6.6. Horizontal Deflection Driving Circuit



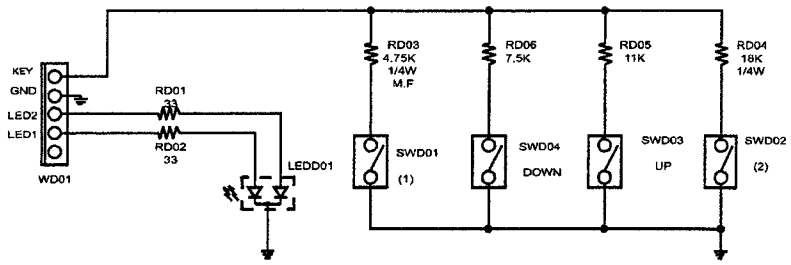
6.6.1. HD signal ***as figure S3*** is output from pin8 of ICB01 TDA4856 and through QH20 and QH21 to drive QH19 IRF630 and TH03. ***Refer to figure S4***

6.6.2. TH03 controls the driving current via DH05, CH35, QH28 and related circuits.

6.6.3. Through above items a and utilizing TH03 to drive QH06, the LC oscillation circuit that consists of defection coil CH22 and DH08 works. ***Refer to figure S5***

6.7. Display Circuit

The display board includes the LED driving circuit (MCU controlled by LED1 and LED2 to drive, key detecting circuit (SWD01, SWD02, SWD03, SWD04 to MCU ADC input).



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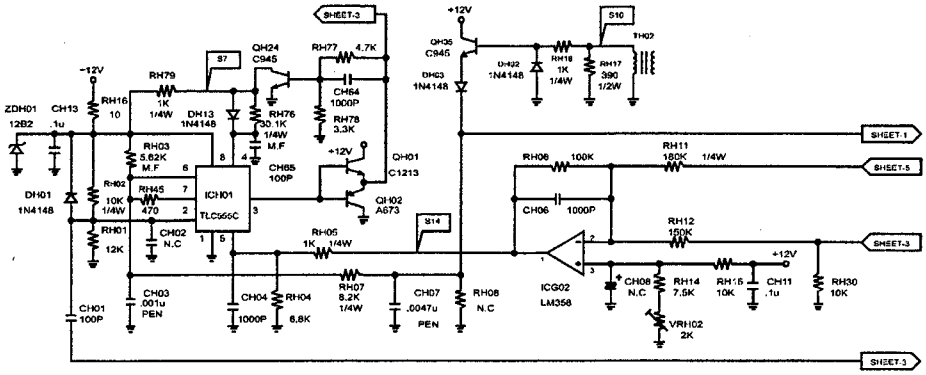
6.8. Horizontal Deflection B+ Control Circuit



6.8.1. ICH01 Trigger circuit:

ICH01 is via RH03, RH45, RH07 and CH03 to get RC oscillation. The frequency is decided by the trigger at pin2. The pin5 controls the duty width of output waveform. ICH01 Trigger CKT is mainly controlled by the following:

6.8.1-a. Trigger composite circuit: Signal ***as figure S3*** is composition of HD via QH20 and QH21. HD is square waveform.

6.8.1-b. Reference voltage waveform: ICG02 OP1 controls it.

6.8.1-c. Trigger output circuit: OP1 combines above circuit.

6.8.2. Operating description:

6.8.2-a. At the power on moment, the horizontal deflection is not working, so the trigger signal HD is differentiated .by CH01 and RH01, then feed to pin2 of ICH01. QH17 controls pin5 of ICH01 and make the output duty width at pin3 of ICH01 increased gradually and drive QH22 via TH01. ***Refer to figure S8.***

6.8.2-b. After QH22's driven, the B^+ ***as figure S9*** is output to LH02 and the horizontal deflection starts operation.

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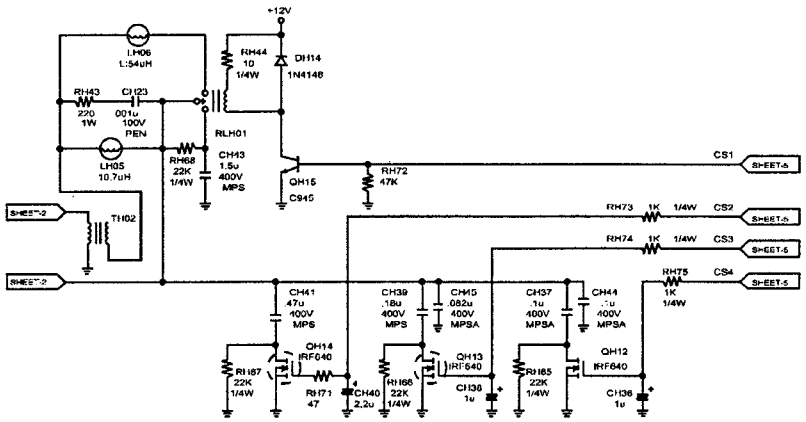
6.8.2-c. The horizontal deflection works steadily after above 1 to 3 steps are completed.

6.8.2-d. ICH01 LM555 is a mono stable oscillator. In high frequency, the trigger Duty may be double triggered and makes the output frequency dropped when the trigger Duty is smaller than the output Duty width, thus there is no enough B^+ for horizontal deflection. In order to have enough B+ and precise output Duty in the high frequency, QH01/QH02 output is differentiated via CH64, RH77 and RH78 and triggers QH24 to limit the output Duty at pin4 of ICH01. ***Refer to figure S7***

6.9. Horizontal Linearity Compensation Circuit



This circuit is designed to minimize the horizontal linearity variations in different horizontal frequency. There are two parts in this circuit:

6.9.1. Inductance compensation circuit:

The main component is LH06 (Linearity coil). The compensation circuit consists of QH15.

6.9.2. Capacitance compensation circuit:

CH44 is Cs capacitors. QH13 controls CH39, QH14 controls CH41. QH12 controls CH37 **ICC01 NT68P62** pin29 (CS4), pin28 (CS3), pin27(CS2) and pin26(CS1) controls QH13, QH12 and QH14 respectively. So, different frequency has different combination to meet the requirement.

For example: When frequency is 31KHz, ICC01 makes CS2~CS4 in high level and cs1 in low level. Thus, QH12 and QH15 Drain-Source is on to make the Cs capacitance equal to be CH45+CH44+CH43+CH41+CH39+CH37=0.082μF+0.1μF+1.5μF+0.47μF+0.18μF+0.1μF=2.432μF.

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6.10. H-Size Pincushion Control CKT

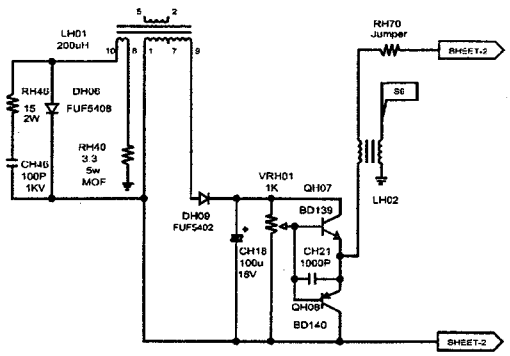
H-Size & Pincushion are used to control B+ that will change the horizontal deflection amplitude. To control B^+, the amplitude at ICH01 pin5 and the Duty width at ICH01 pin3 have to be changed. So ICH01 pin5 connects the control CKT that consists of ICG02 OP1. The reference level and waveform are mixed by ICG02 and send to ICH01 pin5.

6.10.1. VRH02 is mainly to preset the H-Size of each mode, and ICC01 pin31 is to change each specified mode.

6.10.2. In the Pincushion control, a parabolic waveform ***as figure S13*** is from pin11 EWDRV of ICB01 TDA4854 and into ICG02 OP1 to create a output parabolic waveform. ***as figure S14***

6.11. H-Center Control Circuit

H-Center is designed to adjust the Raster's center position by using the secondary current of LH01. This current is rectified through DH09, CH18 and to generate a DC current that will through the adjustment of RH38, VRH01 and RH39. Finally, the current is through the emitter follower, QH07 and QH08, and into LH02 to increase and decrease the horizontal deflection current.



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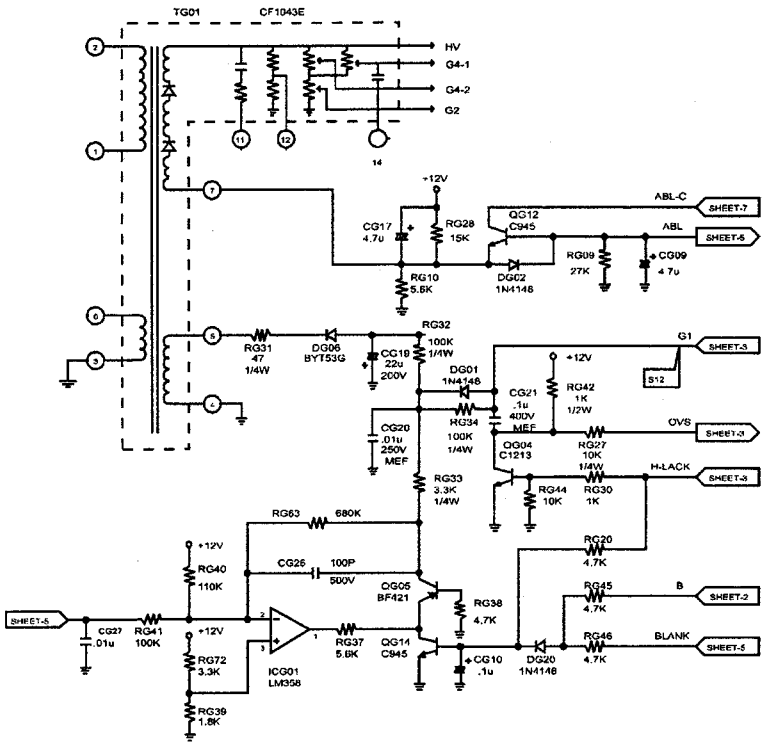
6.12. Brightness Blanking Reset Control CKT



Change the Brightness level by controlling the G1.

6.12.1. In normal working condition, the G1 waveform is synchronized with the vertical sync waveform ***as figure S12***. Since the purpose is to blank the vertical flyback scanning line when vertical is flyback, so the HLACK vertical deflection waveform through RG44, QG04 is used to control it.

6.12.2. Brightness control is via the control at pin30 of ICC01 (NT68P62) pin30 and through the control at ICG01(LM358) OP1 and QG05 to control the DC level of G1.

6.12.3. When frequency is changed, the pin22 Blank of ICC01 will output a high level to RG46,DG20 to make QG14 on. In the same time, thus QG05 off and to get G1 voltage -180V and to blank the screen. After the frequency changed, the pin22 of ICC01 will output a low Level to make QG14 OFF. In the same time, QG05 is not controlled by the pin22 of ICC01 and the Brightness control works normally.

6.12.4. When mode changes from power on to suspend, B will output a high level to make QG14 and QG03 on. QG05 base has positive signal to make QG05 off, to get G1 -180V and to blank the screen.

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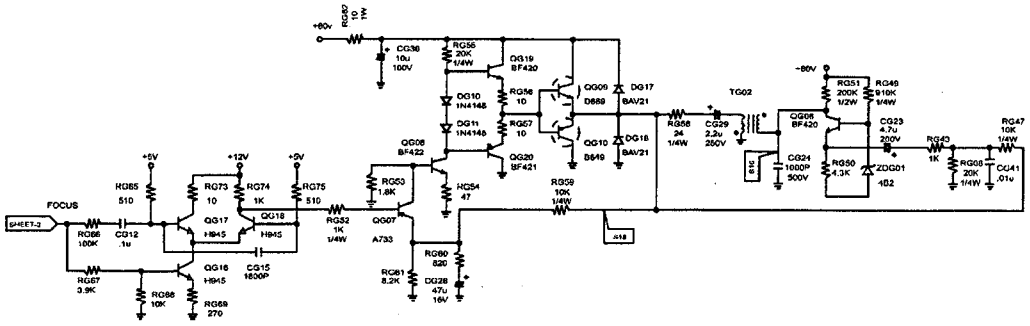
6.13. Focus CKT



Dynamic Focus is used to get perfect focusing of each dot on the screen.

6.13.1. There are H-Focus and Focus (H and V):

6.13.1-a. Focus(H) ***as figure S18***: ICB01 pin32(Focus) outputs a parabolic waveform and through RG52 and QG07 into QG08 to get a reverse amplified waveform. This waveform is via the emitter follower, QG09 and QG10, as a current gain then input into TG02.

6.13.1-b. Focus(V) ***as figure S16***: ICB01 pin32 outputs a parabolic waveform. This Waveform is amplified by QG06 and input into TG02.

6.13.1-c. Focus (H and V) are into TG02 to get a combined output waveform that will input to FBT pin9.

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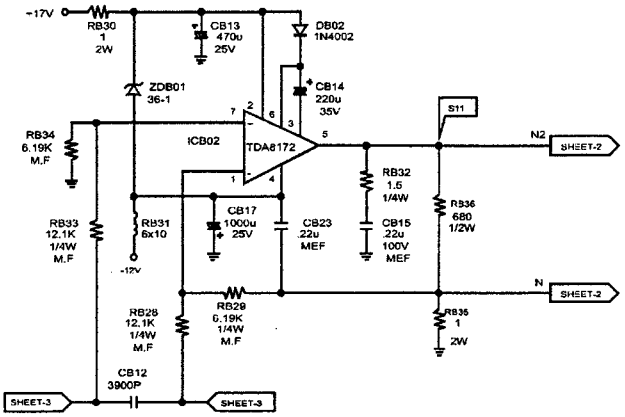
6.14. Vertical Deflection CKT



6.14.1. Vertical deflection Saw-tooth waveform is provided by ICB01 pin12 (VOUT2) and amplified by TDA8172.

6.14.2. A voltage multiplier, connected to pin3 and pin6, consists of DB02 and CB21 is designed to avoid flyback scanning line appeared during the vertical flyback period.

6.14.3. ICB01 pin13 (VOUT1) provides a DC level to CB05, RB23, bCB06 as a V-Position control voltage. As long as pin13 DC level changed, V-Position is also changed.

6.14.4. Vertical Deflection Wave ***as figure S11***

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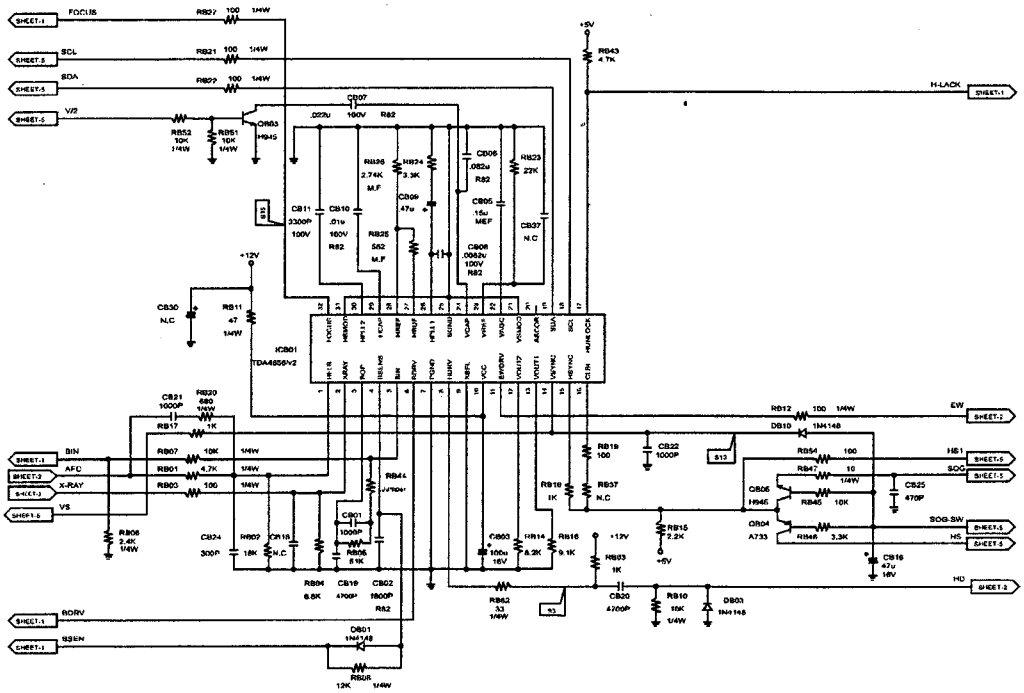
6.15. TDA4856 Circuit

The ICB01 (TDA4856) acts as a key component processing small signals for deflection circuits. The functions of TDA4856 include:



6.15.1. Synchro Processor

6.15.1-a. Capability to accept separate H/V(pin15, pin14) which could be selected by MCU via I2C control(pin18,19).

6.15.1-b. Status register with sync polarity, existence, locking states could be read by MCU via I2C.

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6.15.2. Horizontal part:

6.15.2-a. Wide self-locking range with 25K to 117KHz of HPLL1 to lock the HD frequency to H-sync input. The values of RB25(pin27) and CB09,RB27(pin28) decides the free run frequency(25KHz)

6.15.2-b. The H-phase control by MCU via I2C is also done at the HPLL1 stage.

6.15.2-c. The HPLL2 (pin30) locks the horizontal deflection via AFC (pin1) and provides the functions of dynamic phase controls(Pin-Balance and Parallelogram, internal) control by MCU via I2C.

6.15.2-d. The I2C controlled Focus of Amplitude is output on pin32 and amplified to compensate the horizontal dynamic focus.

6.15.3. Vertical part:

6.15.3-a. The DC voltage of the V-ramp is output on pin12, 13 to ICB02 to be the reference voltage of the amplifier.

6.15.3-b. Vertical parabola generator with I2C controlled amplitude, keystone, S-curve and cupid-bow output on pin31 to the horizontal deflection CKT to compensate the pincushion-like distortion.

6.15.3-c. Focus output on pin32 to be amplified to compensate the vertical dynamic focus.

6.15.3-d. Internal geometry tracking with V-Pos and V-Amp.

6.15.4. Others

6.15.4-a. HUNLOCK status on pin17 to protect H deflection CKT.

6.15.4-b. X-ray protection input on pin2.

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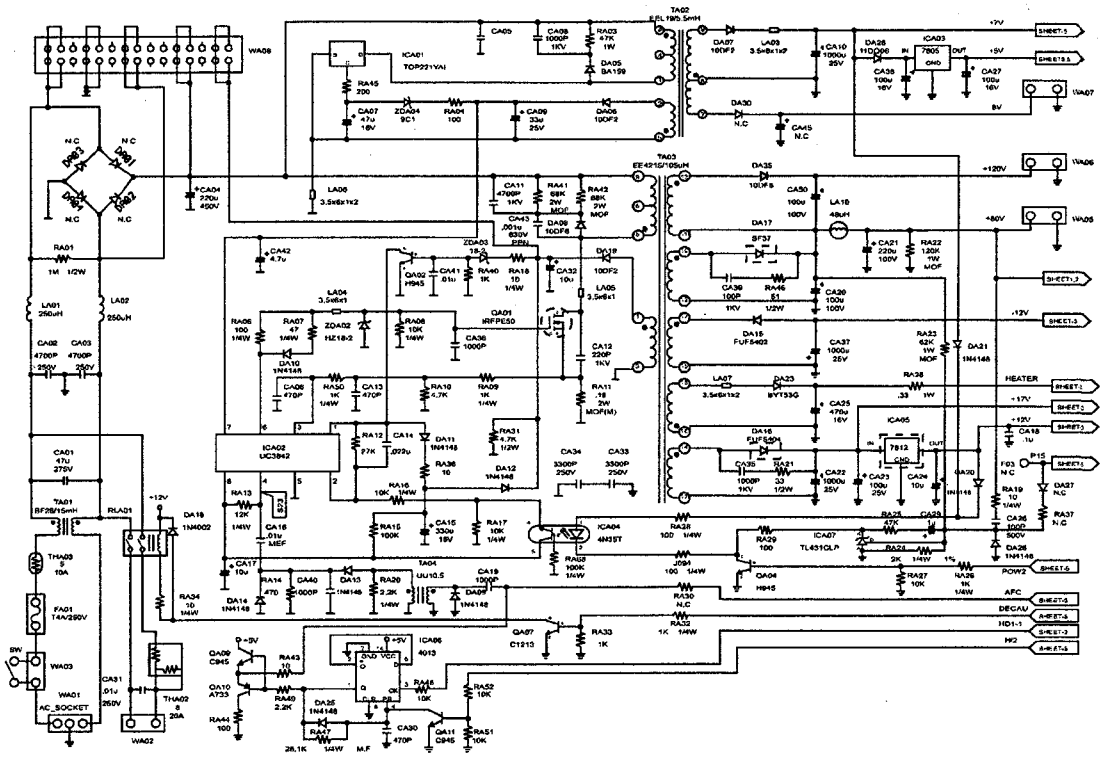
6.16. Power Supply Working Theory



ICA01 and ICA02 consist of a Current Mode Switch Power Supply and provides +80V, +70V, +5V, +17V, -12V and Heater voltage.

6.16.1-a. ICA01 and TA02 are auxiliary power source. ICA01 consists of PWM and Power MOS with an internal oscillate frequency 100KHz and combines with TA02 to provide +5V output. The +17V is through TA02 pin2 and rectified by DA07 to provide ICA02 working voltage and is fed back through ZDA02 into pin C to get a stable output voltage.

6.16.1-b. ICA02, QA01 and TA03 are main power source. ICA02 uses PWM to drive QA01 and TA03 to generate each output voltage. The output voltage is fed back via +80V to ICA07 TL431, then coupled to ICA02 pin 2 via ICA04 4N35 to make +80V stable. TA04 accepts AFC signal to make Power Supply's working frequency synchronized with the horizontal frequency.

6.16.1-c. ZDA03 and DA12 consist of the over-voltage protection circuit.

6.16.2. When output voltage is much higher than normal value or the feed back voltage is abnormal, in order to get protection, the output at pin9 of TA03 raises to the level that ZDA03 is on to trigger QA12 that makes ICA02 pin1 grounded.

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6.17. PFC Power Factor Correction Circuit

Power factor circuit is working for correcting the active current of AC input to reduce the harmonic current The output voltage is limited under 400 vdc. **(the schematic diagram refer to PFC Schematic Section)**

6.17.1. ICP 01 is a controller for power factor correction pre converter. It is designed to drive a free frequency discontinuous mode of following boost converter.

The output voltage feedback to pin#1 to sense and limit the output voltage is under 400 V dc on cp10.

The zero current detection prevents any restart as long as the pin#4 voltage is below (-60 mv). This pin is al50 used to limit the peak current. The over current thre shold is programmed by the resistor of RP08.

6.17.2. ZDP02, QQP04, QP05 and ZDP03 consist of Vcc detection circuit. In case of the monitor is turning to sleep mode, this circuit is forcing the Vcc of Icp01 under the disable voltage and make ICP01 disable.

6.18. D-SUB-BNC selector

D-SUB-BNC selector is consisted of ICU01 and QU01, ICU01 is an electrical switch. The high comes from pin#25 of ICC01 and makes pin#17 of ICU01 to be low level while D-SUB input signal is selected. If pin#17 of ICU01 is turned to high level state, the BNC input signal is selected.
(the schematic diagram refer to **BNC Schematic Section**)

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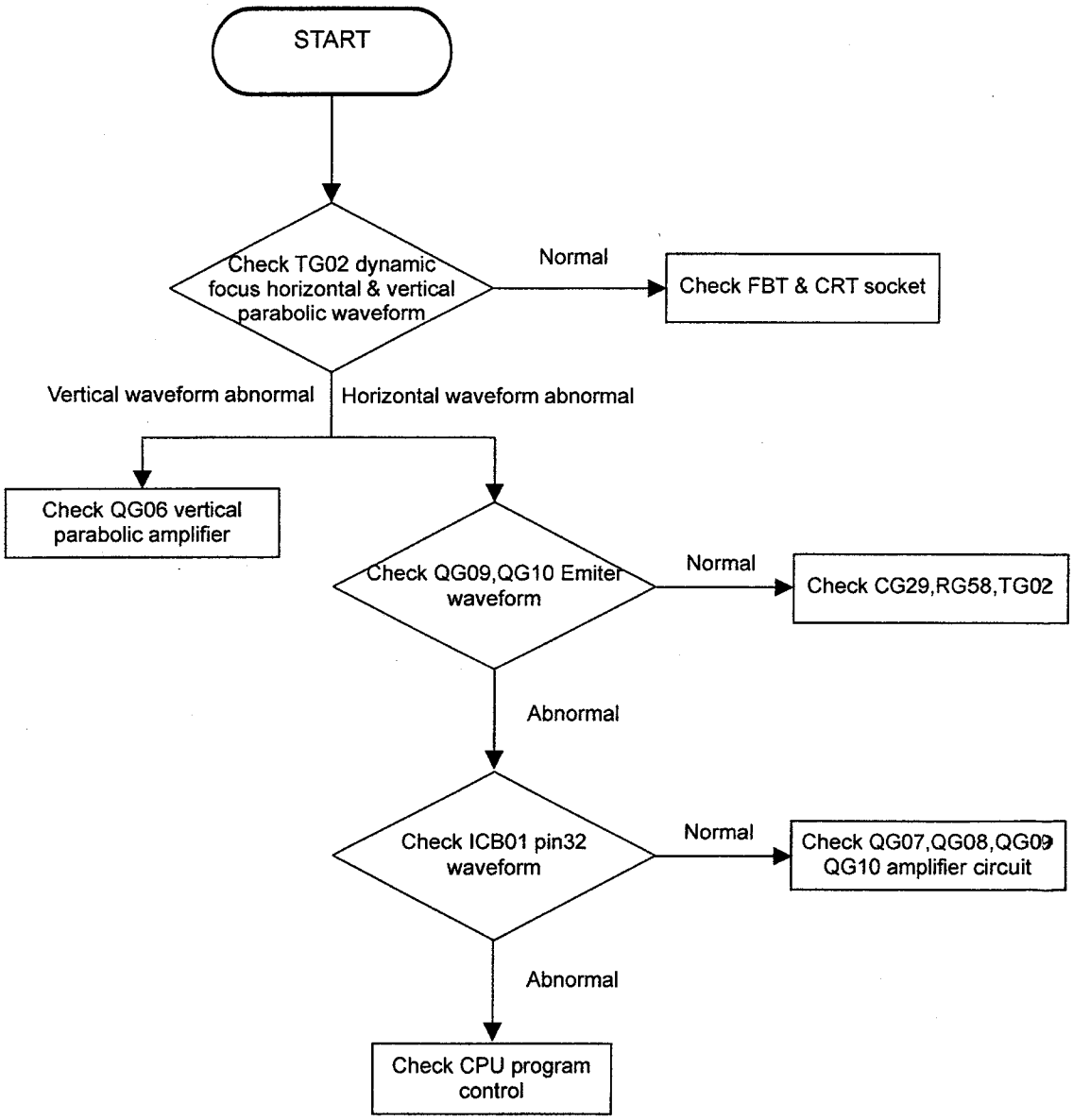
Chapter 7 Trouble Shooting

7.1. Dynamic Focus Failure



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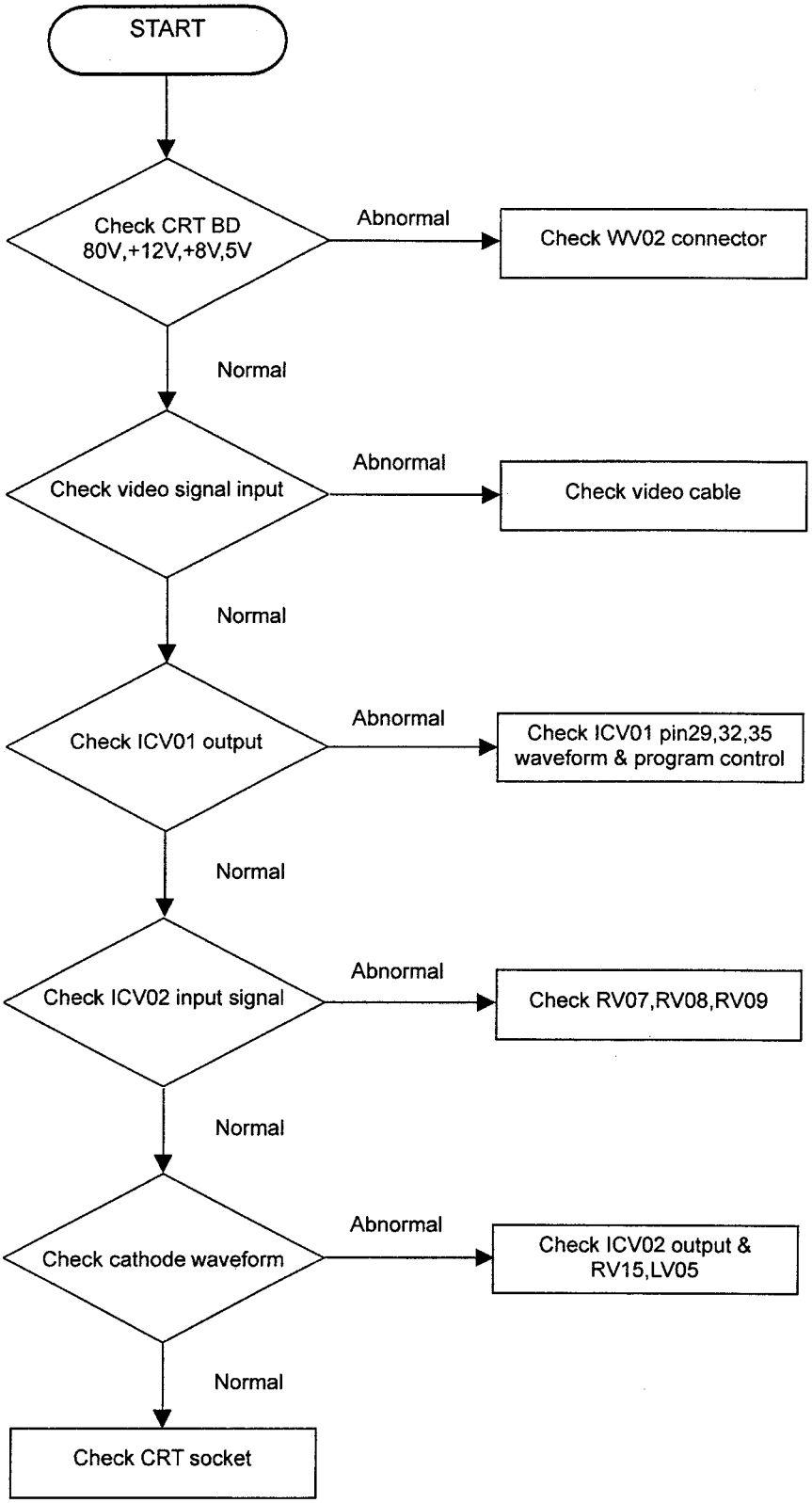
7.2. Video Does Not Appear



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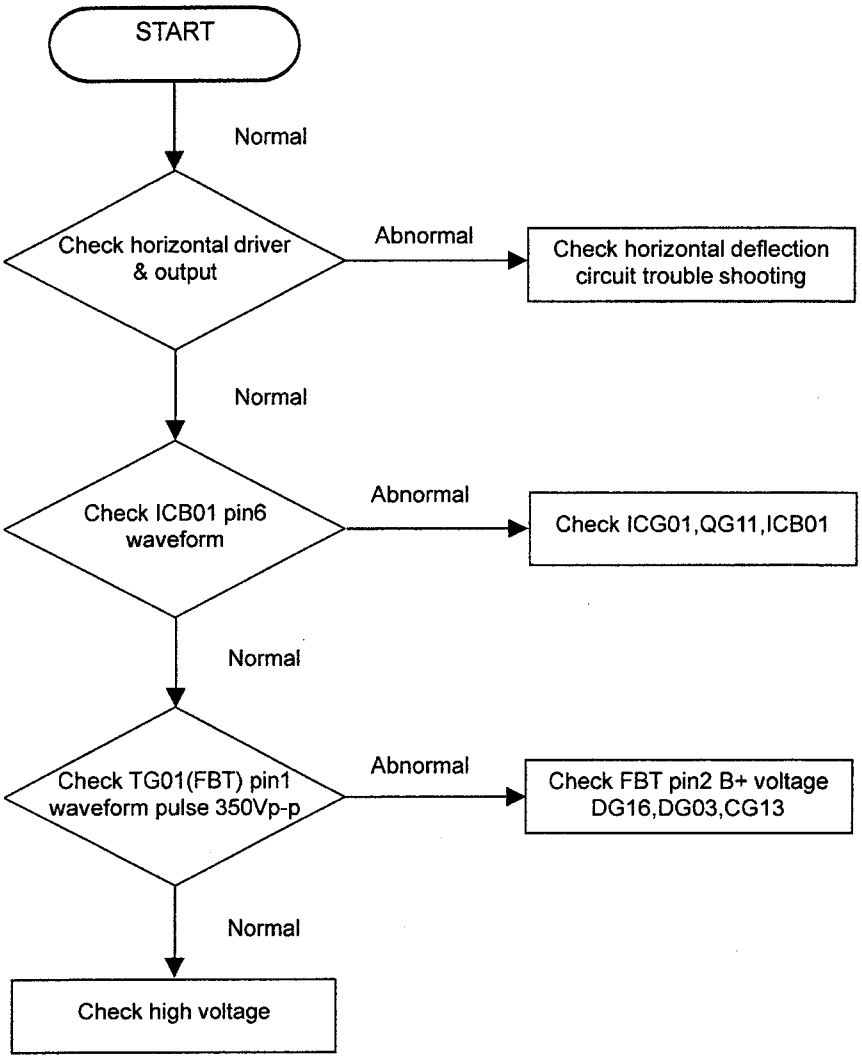
7.3. High Voltage Generator Failure



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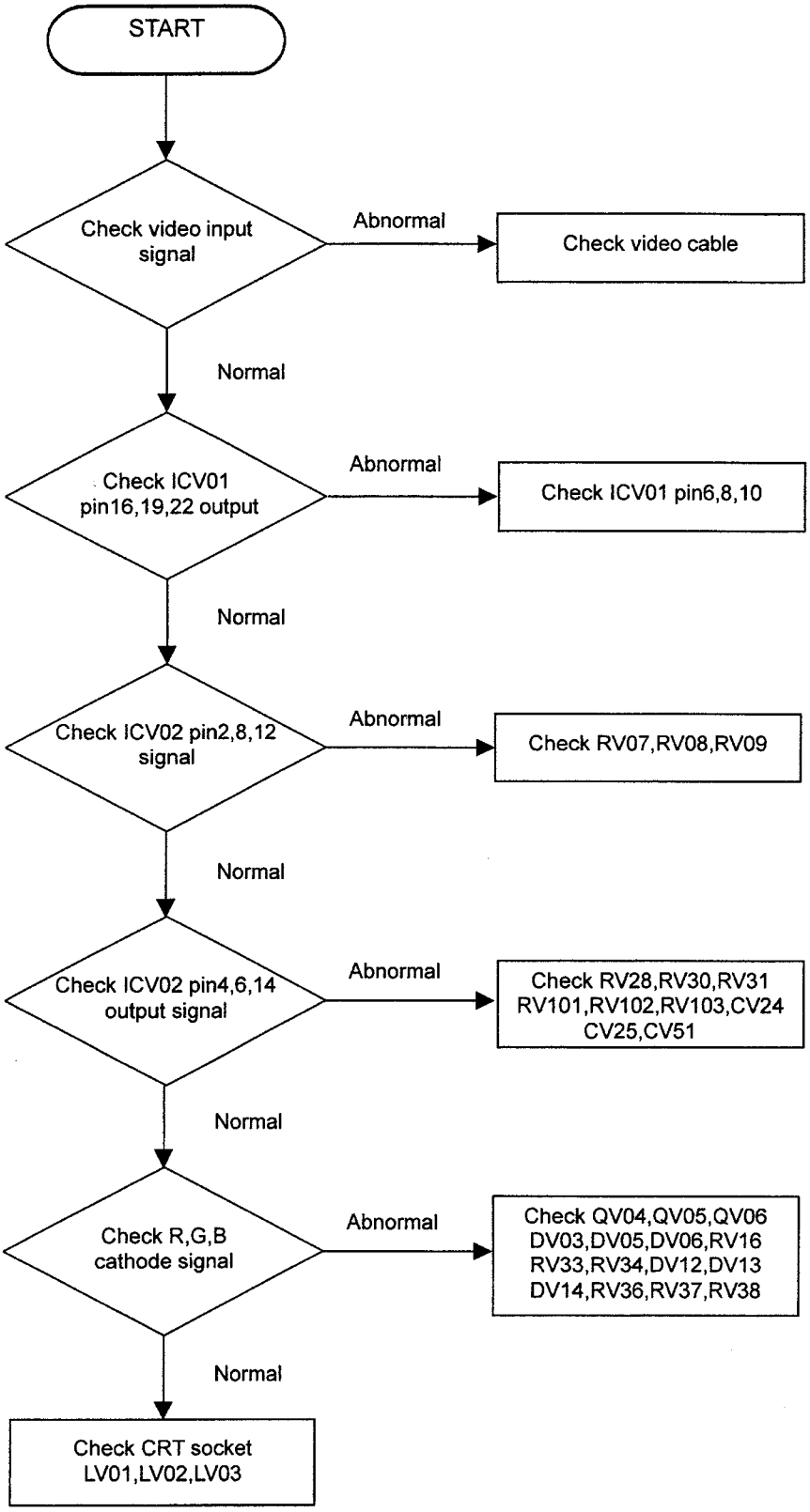
7.4. Video No R, G, B Color



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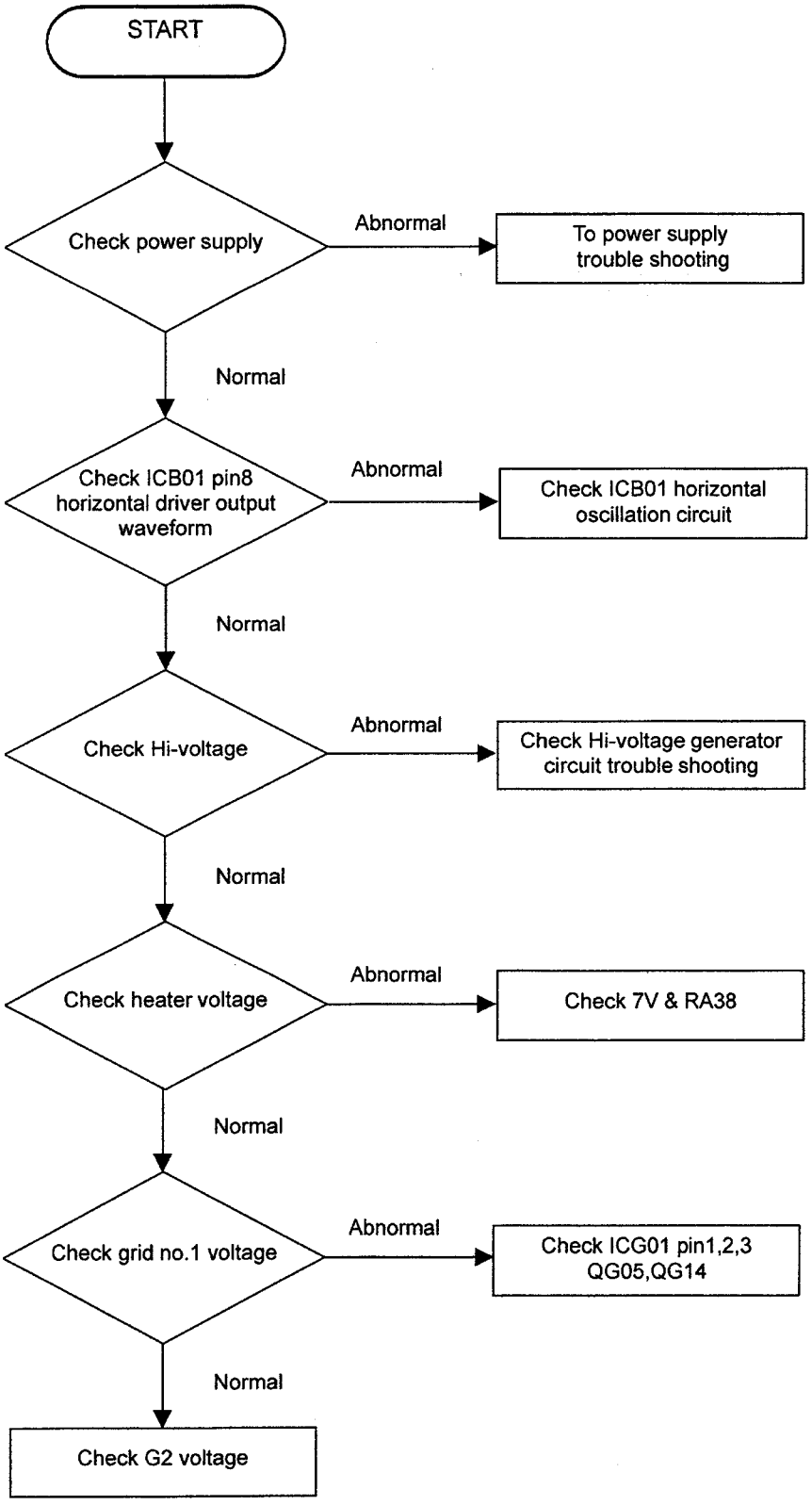
7.5. Raster Does Not Appear



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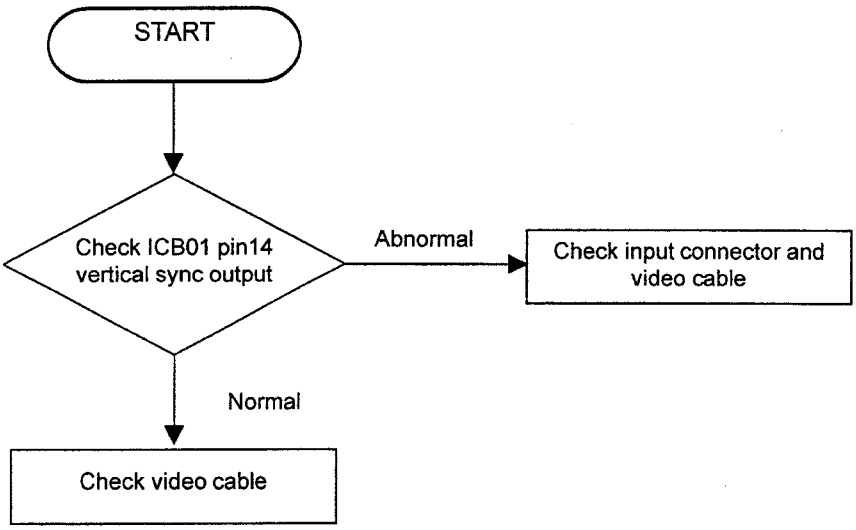
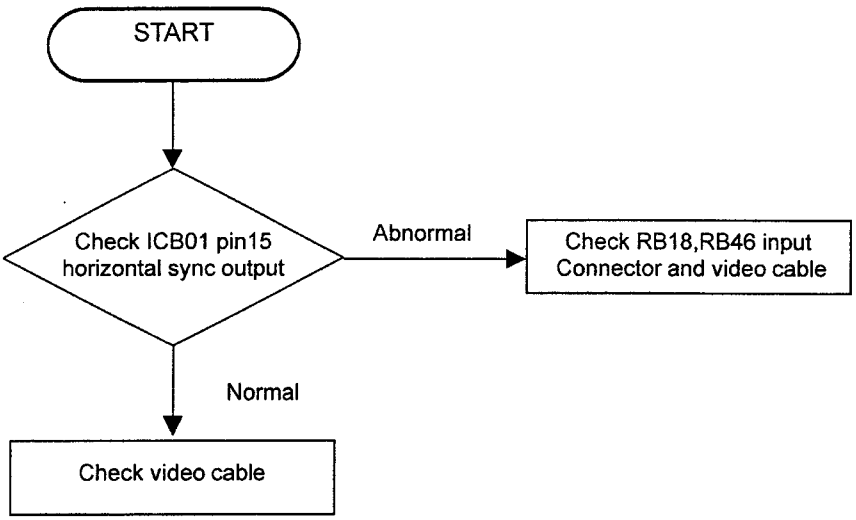
7.6. No Vertical Sync



7.7. No Horizontal Sync



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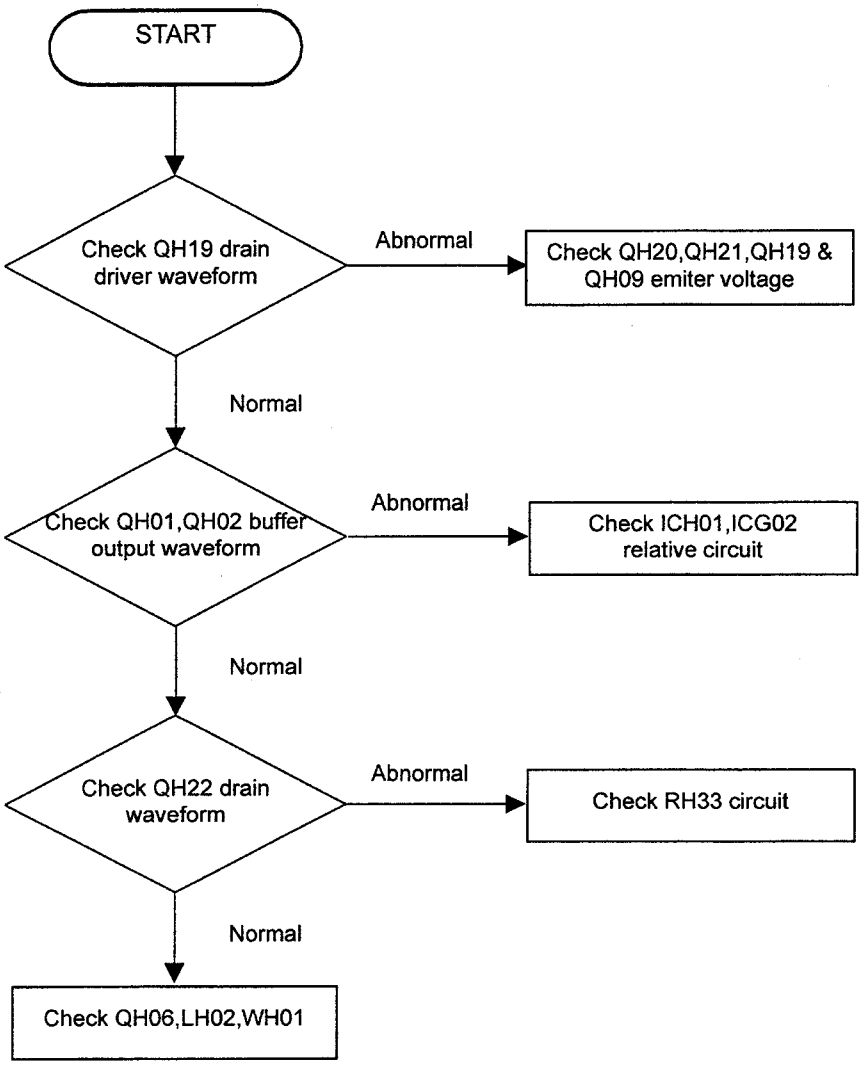
7.8. Horizontal Deflection Fail



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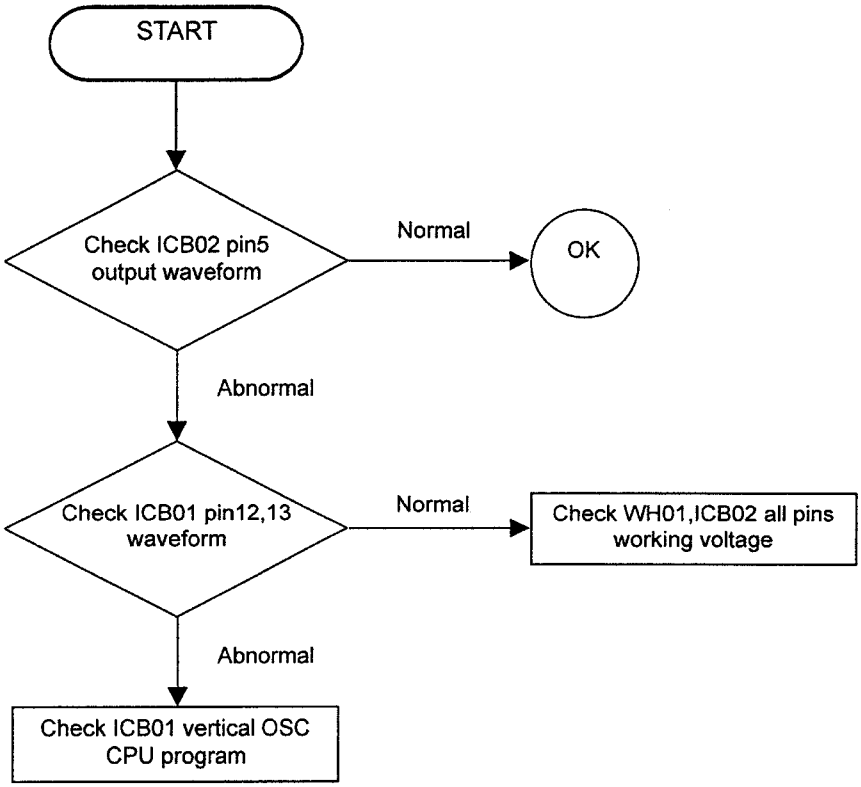
7.9. Single Horizontal Line



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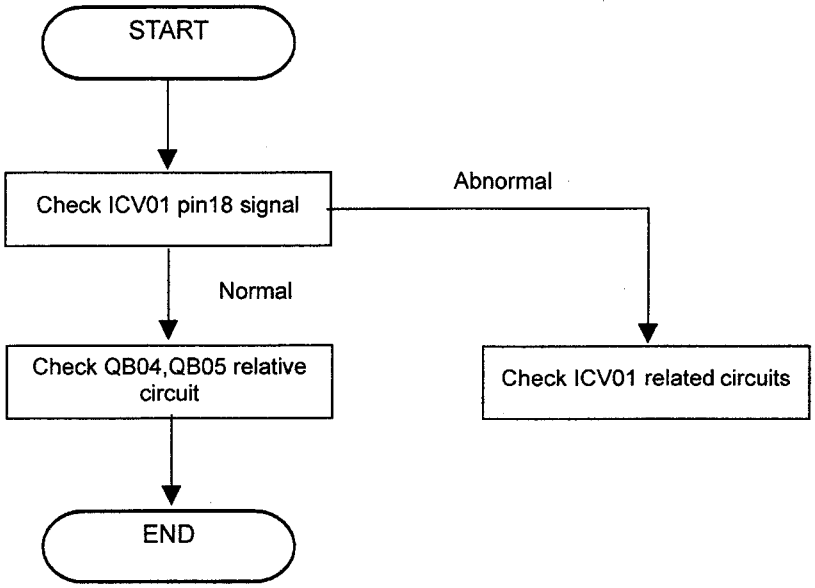
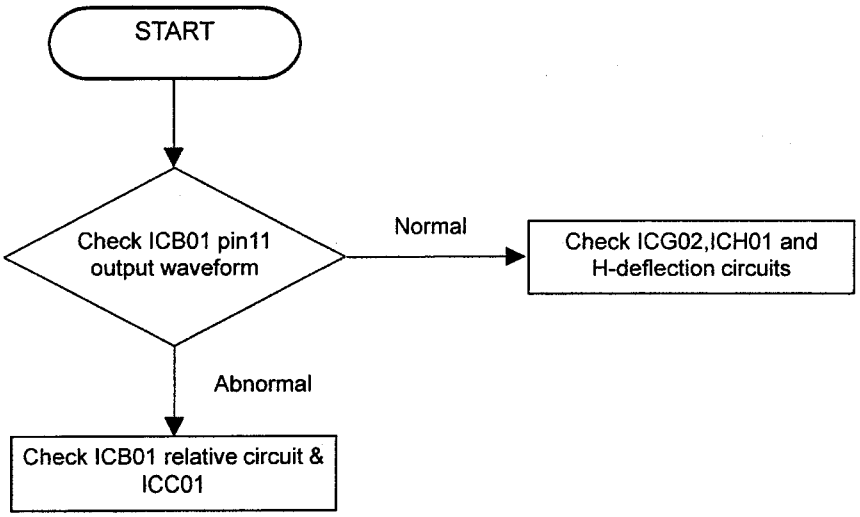
7.10. Sync On Green Does Not Work



7.11. Abnormal Pincushion & Distortion



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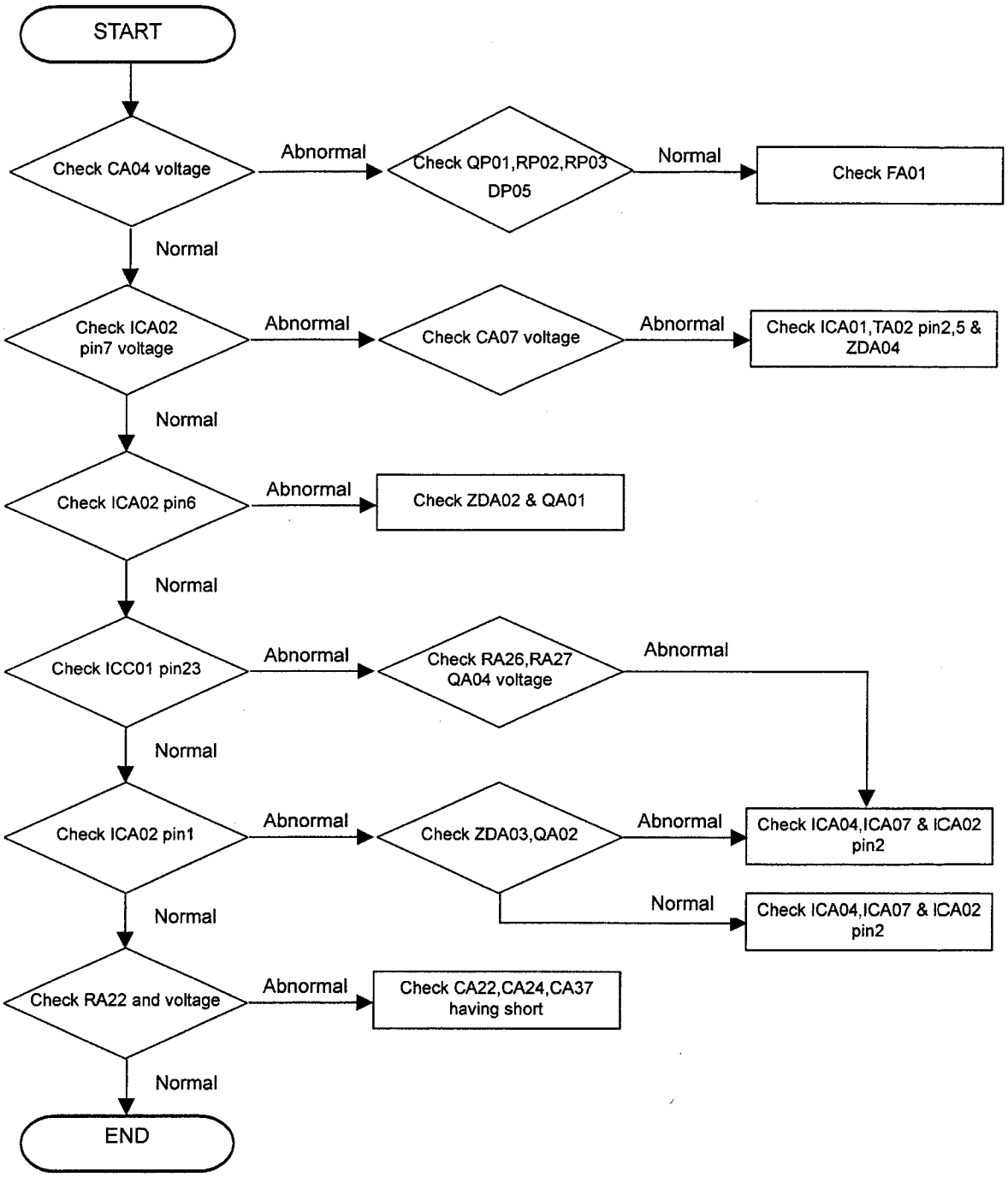
7.12.No Voltage Output



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Chapter 8 Alignment Process

8.1. Factory Adjust Procedure

Input timing:1280x1024 (H=91K,V=85Hz)
Pattern: Cross-Hatch

8.1.1. Turn ON the monitor with the **[2]** key keeping pressed for more than 4 seconds to enter the **Preset-Adjust mode**. (There should be an '**P**' at the top-bottom corner of the **On-Screen-Display**).

8.1.2. E2PROM Initial Procedure:

8.1.2-a. Use the OSD controls to enter the " E2PROM INI ", and toggle it (push the [2] key)

8.1.2-b. Press button [1] toggle to the e2prom initial operation

8.1.2-c. Press button [2] toggle to exit control

8.1.3. Touch Heat Sink of **DA17** and adjust **VRA01** to make Voltage = **80±0.5V**

8.1.4. Make sure the PFC circuit is operating:

8.1.4-a. AC 110V→measure the voltage of CA04 is 245±15V
AC 220V→measure the voltage of CA04 is 388±5Vc

8.1.4-b. Measure the PFC is over 90% by using watt meter

8.1.5. Adjust **VRG01** to make **CRT High-Voltage = 25.5KV**

8.1.6. Preset **"H-SIZE"** to 45% then adjust **VRH02** to make **H-Size = 353±1** mm

8.1.7. Adjust VRH01 to make H-Center (raster) ±3 mm

8.1.8. Short **WG01** to make **X-Ray** Protection and Restart the monitor in **Preset-Adjust mode**

8.1.9. Use the **On-Screen-Display Controls** to adjust the **"H-Position"** ,**"V-Size"**, **"V-Position"**, **"Pincushion"**, **"Trapezoid"**, **"Parallel"**, **"P-Balance"**, **"Rotation"**, **"VLinr-Sym"**, **"VLinr-Center"**, **"Top-Hooking", "Bottom-Hooking"** to meet the **Spec**.:

- H-Position: ± 1.5mm
- V-Size: 265 ± 1.5mm
- V-Position: ± 1.5mm
- Pincushion: ≤ 1.5mm
- Trapezoid: ≤ 1.5mm
- Parallel: ≤ 1.5mm
- P-Balance: ≤ 1.5mm
- Rotation: ≤ 1.5mm

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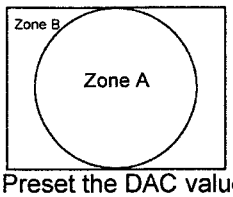
8.1.10. Jitter - Not allowed (Viewed at 45 cm)

8.1.11. Misconvergence -Zone A: 0.25mm; Zone B: 0.35mm



353x265mm

8.1.12. Preset the DAC value of H-FOCUS and V-FOCUS to be " 90% "

8.2. Factory Preset Data Adjust Procedure

Input timing: see attached
Pattern: Cross-Hatch

8.2.1. Turn ON the monitor with the **[2]** key keeping pressed for more than 4 seconds to enter the **Preset-Adjust mode**. (There should be an '**P**' at the top-left corner of the **On-Screen-Display**).

8.2.2. For each timing list on attached table (except primary one <1280x1024 H=91K, V=85Hz), use the **On-Screen-Display Controls** to adjust the "**H-Size**", "**H-Position**"(video), "**V-Size**", "**V-Position**", "**Pincushion**", "**Trapezoid**", "**Parallel**", "**P-balance**", to meet the Spec.:

- H-Size: 353± 1.5mm
- H-Position: ± 1.5mm
- V-Size: 265 ± 1.5mm
- V-Position: ± 1.5mm
- Pincushion: ≤ 1.5mm
- Trapezoid: ≤ 1.5mm
- Parallel: ≤ 1.5mm
- P-Balance: ≤ 1.5mm

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8.3. Color Adjust Procedure

Input timing: 1280 x 1024 (H=91K,V=85Hz)

Pattern: Center Block/Full White

8.3.1. Turn ON the monitor with the **[2]** key keeping pressed for more than 4 seconds to enter the **Preset-Adjust mode**. (There should be an '**P**' at the top-left corner of the **On-Screen-Display**).

8.3.2. Cut Off Adjust:

8.3.2-a. Use the **OSD Controls** to adjust the "**CONTRAST**" to **min**.(00), "**BRIGHTNESS**" to **max**.(100)

8.3.2-b. **G2 voltage** to 700V

8.3.2-c. Enter the "**VIEWMATCH COLOR**" submenu of the **OSD Control**

8.3.2-d. Select the "**VIEWMATCH COLOR**" and toggle it (push the Function key) to **CUTOFF**

8.3.2-e. Preset the **RED,GREEN,BLUE** to 0

8.3.2-f. Adjust the **RED,GREEN,BLUE** to obtain color temperature **X=0.283±0.010,Y=0.298±0.010**

8.3.2-g. Adjust **SUB-BRI"** to **≤0.4FL**

8.3.3. Color Temperature Adjust:

8.3.3-a. Use the **OSD Controls** to adjust the "**BRIGHTNESS**" to **50**, then the "**CONTRAST**" to **100.**

8.3.3-b. Toggle the "**VIEWMATCH COLOR**" to **9300°K**

8.3.3-c. Preset the **RED,GREEN,BLUE**

8.3.3-d. Adjust the **RED,GREEN,BLUE** to obtain color temperature **X=0.283±0.010,Y=0.298±0.010**

8.3.3-e. Repeat **step b,c,d** to adjust color temp. **6500K (X=0.313±0.015,Y=0.329±0.015)** and **5000°K (X=0.346±0.015,Y=0.359±0.015)**

8.3.4. White Luminance Adjust

8.3.4-a. Center Block White Luminance:

- Use the **OSD Controls** to adjust the "**CONTRAST**" to **100** , "**BRIGHTNESS**" to **50, "ABL" to 50**
- Toggle the "**VIEWMATCH COLOR**" to **9300°K**
- Adjust the **"SUB-CONT"** to make the center block 42±2 FL

8.3.4-b. Full While Luminance:

- Use the **OSD Controls** to adjust the "**CONTRAST**" to **100** to, then the "**BRIGHTNESS**" to **50**
- Toggle the "**VIEWMATCH COLOR**" to **9300°K**
- Adjust the "**ABL**" to obtain luminance output 30±2 FL in the full white pattern

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Chapter 9 Spare Parts List

ITEM	LOCATION	PART NO.	DESCRIPTION	REMARK
1	DA17	3019-0022-0159	ASS'Y DIODE OPTION BD FOR DA17	
2	DG06	0390-3003-2052	FAST DIODE BYT53G T	
3	DG17	0390-5000-9132	GEN. DIODE BAV21 T	
4	DH06	0390-3004-8022	FAST DIODE FUF5408 T	
5	DH08	0390-2000-2180	DAMPER DIODE FMP-G5FS N-F	
6	ICA01	0430-4004-0230	IC TOP221Y TO-220 3PIN	
7	ICA02	0430-7000-3107	IC UC3842 DIP 8PIN	
8	ICA04	0430-7000-1110	IC 4N35 DIP 6PIN	
9	ICB01	0430-4005-2109	IC TDA4856/V2 SDIP 32PIN	
10	ICB02	0430-4001-7107	IC TDA8172 DIP 7PIN	
11	ICC01	0430-5002-6142	IC NT68P62 DIP 40 PIN (OTP)	
12	ICG01	0430-4000-1104	IC LM358 DIP-8	
13	ICV01	0430-4006-6402	IC M52742ASP SDIP 36PIN	
14	ICV02	0430-4006-3104	IC LM2412T DIP 11PIN	
15	ICV05	0430-7003-9141	IC D1642 DIP 16PIN V3.0	
16	QA01	0420-1001-2501	POWER MOS IRFPE50 TO-3P	
17	QG03	0420-1001-5401	POWER MOS IRF740 TO-220	
18	QG05	0410-4000-2111	TRANSISTOR BF421 TO-92 T	
19	QG06	0410-4000-1111	TRANSISTOR BF420 TO-92 T	
20	QG08	0410-4000-3105	TRANSISTOR BF422 TO-92 T	
21	QG09	0410-3000-3306	TRANSISTOR 2SD669AC TO-126	
22	QG10	0410-1000-1306	TRANSISTOR 2SB649AC TO-126	
23	QH06	0410-2001-5516	TR NPN 2SC5584 1500V 20A TOP-3	
24	QH14	0420-1000-2407	POWER MOS IRF640 TO-220	
25	QH19	0420-1000-1401	POWER MOS IRF630 TO-220	
26	QH22	0420-1001-5401	POWER MOS IRF740 TO-220 3PIN	
27	QH28	0410-6000-1311	TRANSISTOR BD139 TO-126	
28	RLH01	0251-1212-0017	RELAY 1POLES 240V/15A/12 VDC /320	
29	ZDA02	0400-1751-2000	ZENER 18-2 17.5-18.3 1/2W	
30		0320-2400-0010	POWER CORD 6ft 100V T-MARK	J model only
31		0320-3400-0010	POWER CORD 6ft 220V VDE	E model only
32		0320-3400-0020	PC POWER CORD 6ft 220V VDE	-P/-A model
33		0320-4400-0010	POWER CORD 6ft 110V UL/CSA AL	-P/-M model
34		0320-5000-0010	POWER CORD 6ft 220V SAA	A model only
35		0321-0400-0130	S.CABLE 1800mm 15(3R-3R) 3+6C / PC99	
36		1701-0105-8010	BEZEL P95f G7397 PC+ABS	
37		1701-0200-6030	BACK COVER P95f PC+ABS D-SUB	
38		1925-1000-0490	POLYLON TOP RIGHT P95f	
39		1925-1000-0480	POLYLON BOTTOM P95f	
40		1925-1000-0510	POLYLON TOP LEFT P95f	
41		1925-1200-2030	CARTON VIEWSONIC P95f -P	-P/-J/-A model
42		1925-1200-1951	CARTON P95f	-M/-E model
43		1925-1300-1990	VS WIZARD CD ROM P95f	
44		1925-1300-2140	SETUP GUIDE VIEWSONIC P95f	
45		3019-0072-0156	ASS'Y DISPLAY BD	
46		3019-0212-0160	ASS'Y MAIN/PWR/CTRL BD P95f	
47		3021-0022-0118	ASS'Y BNC BD	
48		3019-0182-0151	ASS'Y VIDEO BD	

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Chapter 10 Critical Parts List

ITEM	LOACTION	PART NO	DESCRIPTION	REMARK
1		0210-0190-1655	CRT 19" M46LRY21X21 MIT. .26MM	
2		0330-1900-0570	DEGAUSSING 19" 16ohm 0.55*90Ts	
3	CA01	0122-0474-2702	P/C X2 0.47uF 275V K B	
4	CA02	0122-1472-4000	D/C Y 4700PF 400V M N-F	
5	CA03	0122-1472-4000	D/C Y 4700PF 400V M N-F	
6	CA04	0101-1221-4503	E/C GEN. 220uF 450V 85' S	
7	CA33	0122-1332-2522	D/C Y 3300PF 250V MB	
8	CA34	0122-1332-2522	D/C Y 3300PF 250V MB	
9	FA01	0180-4402-5201	FUSE T-L 250V 4A 5x20 GLASS	
10	ICA04	0430-7000-1110	IC 4N35 DIP 6PIN	
11	LA01	0360-1000-0010	RING CORE L:250uH 4A	
12	LA02	0360-1000-0010	RING CORE L:250uH 4A	
13	QA01	0420-1001-2501	POWER MOS IRFPE 50 TO-3P	
14	RA01	0130-1004-1250	RES. CF 1.0Mohm 1/2W J A	
15	RLA01	0252-1250-2012	RELAY 2POLES 250V/5A/12Vdc DT	
16	TA02	0350-0419-0030	X'FMR EEL19 5.5mH AT1099DA	
17	TA03	0350-0242-0090	X'FMR EE4215 105uH (21" & 22")	
18	TA04	0353-0600-0010	X'FMR SYNC UU 10.5 1.75-1.75mH	
19	TG01	0480-0000-0100	F.B.T. 26.5KV 3000PF (CF1043E)	
20	WA01	0262-0000-0012	AC SOCKET 0714C PCB TYPE	
21	WA02	0451-1000-0294	WAFER 10mm 2P WHITE	

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Chapter 11 Parts List

11.1. 2019-2210-7238 19" COLOR MONITOR P95f

ITEM	LOCATION	PART NO.	DESCRIPTION	Q'ty
1		1712-0300-0062	SHIELDING COVER	1
2		1925-1200-1951	CARTON P95f	1
3	SET01	1701-0200-6030	BACK COVER P95f PC+ABS D-SUB & BNC	1
4	SET02	1701-0800-0080	PALTE P95f	1
5	SET03	1701-1000-0100	PLASTIC FOOT / GL-24H	2
6	SET04	1724-2304-1402	SCREW,BBC,M4.0X14L,ZN-CC	6
7	SET05	1925-1000-0480	POLYLON BOTTOM P95f	1
8	SET06	1925-1000-0490	POLYLON TOP RIGHT P95f	1
9	SET07	1925-1000-0510	POLYLON TOP LEFT P95f	1
10	SET08	1925-1100-0301	PE BAG 1000LX558WX0.04T EUROPE	1
11	SET11	3019-0642-0303	CHASSIS ASS'Y P95f	1
12	SET12	3021-0062-0301	BASE(USB) ASS'Y PC+ABS (170105054010)	1
13	SET13	1936-1000-0100	V.SONIC LOGO (AL. PLATE)	1

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11.2. 3019-0642-0303 CHASSIS ASS'Y P95f

ITEM	LOCATION	PART NO.	DESCRIPTION	Q'TY
1		0210-0190-1655	CRT 19" M46LRY21X21 MIT. .26MM	1
2		0320-4400-0010	POWER CORD 6FT 110V UL/CSA AL	1
3		0321-0400-0130	S.CABLE 1800mm 15(3R-3R) 3+6C (+PIN9)	1
4		0330-1900-0570	DEGAUSSING 19" 16ohm 0.55*90Ts	1
5		0333-1900-0770	PURITY 19" 77.5ohm 150TS+Purity Corner	1
6		0460-1107-0140	WH XH7P-XH7P 210mm CORE*1	1
7		0460-1210-0050	WH ECI-3960 10P/6P/3P 1015#18/22 800MM	1
8		0460-1701-0270	WH SRA4.3 0.12/112C 130MM + H-S	1
9		0460-1701-0400	WH SRA4.3-ELR3.8 1015#18 100mm	1
10		0460-1701-0550	WH SRA4.3-SRA4.3 0.12/112C 60mm +H-S	1
11		0460-2202-0220	BRAID 0.12/112C 1015#18 920mm +core	1
12		1701-1400-9800	WIRE SADDLE/ YJ98	15
13		1701-1500-0010	WIRE CLIPS NYLON 66(UL)	3
14		1701-1500-0900	SPACER SUPPORTS/FCB-10	9
15		1701-1500-1300	FBT CLIPS / HV-3	1
16		1701-1600-0020	MOVABLE BUSHING US-12.45	2
17		1712-0100-0510	BACK COVER BRACKET RIGHT	1
18		1712-0100-0520	BACK COVER BRACKET LEFT	1
19		1712-0100-0620	CRT HOLDER LEFT / P95f	1
20		1712-0100-4400	CRT HOLDER RIGHT / P95f	1
21		1712-0100-4600	VIDEO BD BRACKET AT1097F/P95f	1
22		1712-0300-0030	VIDEO BD SHIELDING	1
23		1712-0500-0162	CRT BD SHIELDING-A	1
24		1712-0500-0172	BOTTOM SHIELDING AT1097FB,AT1099DB	1
25		1712-0600-0011	COPPER CLAW	2
26		1721-1205-2510	TAP. SCREW BPTCW #M5x25L Zn	4
27		1724-2304-1402	SCREW,BBC,M4.0X14L,ZN-CC	8
28		1724-2603-0602	SCREW,BTCW,M3.0X6L,ZN-CC	13
29		1724-2603-0802	SCREW,BTCW,M3.0X8L,ZZ-CC	23
30		1925-1100-0402	PE BAG 360LX200WX0.04T/EUROPE	1
31		1925-1300-1990	VS WIZARD CD ROM P95f	1
32		1925-1300-2140	SETUP GUIDE VIEWSONIC P95f	1
33		1925-1400-0090	TCO99 ECO DOCUMENT	1
34		1925-1400-0480	SAFETY INSERT CARD VIEWSONIC	1
35		1936-1100-2191	B/C LBL P95f	1
36		1936-1500-0100	FDA WARNING LBL AT897D/F/C	1
37		1947-1500-0250	SPONGE (10*17*1)	2
38		1947-1600-0190	CD ROM FOR P95f	1
39		1947-1700-0200	AL.TAPE 230MMX50MM	2
40		1947-1700-0250	INSULATOR FOR YOKE (150mm*20mm)	1
41		1947-1700-1500	SHIELDING AL. TAPE (270.0*50.0)	2
42		3019-0022-0118	ASS'Y BNC BD P95f	1
43		3019-0042-0319	SHIELDING ASS'Y P95f	1
44		3019-0182-0151	ASS'Y VIDEO BD P95f	1
45		3019-0212-0160	ASS'Y MAIN/PWR/CTRL BD P95f	1
46		3019-0782-0306	BEZEL ASS'Y P95f	1

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11.3. 3021-0062-0301 BASE(USB) ASS'Y G7397 PC+ABS

ITEM	LOC	PART NO	DESCRPTION	QTY
1	6V01	1701-0504-3000	SWIVEL BALL G7397 PC+ABS P95f	1
2	6V02	1701-0505-4010	USB BASE G7397 ABS P95f	1
3	6V02M	1701-1000-0200	BASE FOOT 18.8X5.8T	3
4	6V03	1701-0800-0160	USB BASE REAR COVER G7397	1

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11.4. 3019-0022-0118 ASS'Y BNC BD P95f

ITEM	LOC	PART NO	DESCRPTION	QTY
1	BNC01	1712-0100-4300	BNC BRACKET AT897/PT771/P95f	1
2	BNC02	1701-0800-1900	BNC PLATE AT897/PT771/P95f	1
3	BNC03	1712-0500-2000	GROUNDING PLATE	1
4	BNU01	0303-0000-0010	BNC CONN. 50ohm 180' 36MM	1
5	BNU02	0303-0000-0010	BNC CONN. 50ohm 180' 36MM	1
6	BNU03	0303-0000-0010	BNC CONN. 50ohm 180' 36MM	1
7	BNU04	0303-0000-0010	BNC CONN. 50ohm 180' 36MM	1
8	BNU05	0303-0000-0010	BNC CONN. 50ohm 180' 36MM	1
9	CNU01	0300-1210-3152	D-SUB FEMALE 180' 15P 3ROW	1
10	CU05	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
11	CU14	0101-1470-1211	E/C GEN. 47UF 16V 105' F	1
12	CU15	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
13	CU17	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
14	DU01	0390-5000-1052	GEN. DIODE 1N4148 T	1
15	DU02	0390-5000-1052	GEN. DIODE 1N4148 T	1
16	DU03	0390-5000-1052	GEN. DIODE 1N4148 T	1
17	DU04	0390-5000-1052	GEN. DIODE 1N4148 T	1
18	DU05	0390-5000-1052	GEN. DIODE 1N4148 T	1
19	DU06	0390-5000-1052	GEN. DIODE 1N4148 T	1
20	ICU01	0430-7005-4402	IC M52758SP SDIP 32PIN	1
21	LU01	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
22	PCB7	0171-3441-0061	PCB BNC BD FR-4 220x170mmx1.6t	1
23	QU01	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
24	RU01	0130-7509-1850	RES. CF 75ohm 1/8W J A	1
25	RU02	0130-7509-1850	RES. CF 75ohm 1/8W J A	1
26	RU03	0130-7509-1850	RES. CF 75ohm 1/8W J A	1
27	RU04	0130-7509-1850	RES. CF 75ohm 1/8W J A	1
28	RU05	0130-7509-1850	RES. CF 75ohm 1/8W J A	1
29	RU06	0130-7509-1850	RES. CF 75ohm 1/8W J A	1
30	RU07	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
31	RU08	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
32	RU09	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
33	RU10	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
34	RU11	0130-4702-1850	RES. CF 47Kohm 1/8W J A	1
35	RU12	0130-4702-1850	RES. CF 47Kohm 1/8W J A	1
36	RU13	0130-4702-1450	RES. CF 47Kohm 1/4W J A	1
37	RU14	0130-4702-1450	RES. CF 47Kohm 1/4W J A	1
38	RU15	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
39	RU16	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
40	RU17	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
41	RU18	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
42	RU19	0130-4702-1850	RES. CF 47Kohm 1/8W J A	1
43	RU20	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
44	RU21	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
45	RU22	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
46	RU23	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
47	RU25	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
48	RU26	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
49	RU27	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
50	RU28	0130-3309-1850	RES. CF 33ohm 1/8W J A	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
51	RU29	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
52	RU30	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
53	RU31	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
54	RU32	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
55	RU33	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
56	RU34	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
57	WU01	0451-2500-0744	WAFER 2.50MM 7P 90' KINK	1
58	WU02	0451-2500-0944	WAFER 2.50MM 9P 90' KINK	1

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11.5. 3019-0042-0319 SHIELDING ASS'Y P95f

ITEM	LOC	PART NO	DESCRPTION	QTY
1		1712-0100-0250	CHASSIS BRACKET FRONT AT1097	1
2		1712-0100-0273	CHASSIS BRACKET RIGHT P95f	1
3		1712-0100-0283	CHASSIS BRACKET LEFT P95f	1
4		1712-1000-0010	SUPPORT BAR AT1099DA	1
5		1724-2603-0802	SCREW,BTCW,M3.0X8L,ZZ-CC	6
6		1724-3503-0602	SCREW PTAN M3.0X6L ZN-CC	2

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11.6. 3019-0182-0151 ASS'Y VIDEO BD P95f,P225f

ITEM	LOC	PART NO	DESCRPTION	QTY
1		0171-1441-0232	PCB VIDEO BD FR-4 150x120mmx1.6t	1
2	CV01	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
3	CV02	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
4	CV03	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
5	CV05	0101-1221-1211	E/C GEN. 220UF 16V 105' F	1
6	CV06	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
7	CV07	0101-1221-1211	E/C GEN. 220UF 16V 105' F	1
8	CV08	0111-3822-5115	C/M MULTI 8200PF 50V X7R 0805	1
9	CV10	0101-1220-2112	E/C GEN. 22UF 160V 105' K	1
10	CV14	0111-1103-5222	C/C DISK 0.01UF 500V Z5U F-K	1
11	CV15	0111-2330-5202	C/C DISK 33PF 500V NPO F-K	1
12	CV16	0111-1103-5222	C/C DISK 0.01UF 500V Z5U F-K	1
13	CV17	0101-1101-2012	E/C GEN. 100UF 100V 105' K	1
14	CV18	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
15	CV20	0111-3103-5115	C/M MULTI 0.01UF 50V X7R 0805	1
16	CV24	0111-3220-5105	C/M MULTI 22PF 50V NPO 0805	1
17	CV25	0111-3220-5105	C/M MULTI 22PF 50V NPO 0805	1
18	CV26	0101-3109-2311	E/C N-P. 1UF 250V 105' F	1
19	CV27	0101-3109-2311	E/C N-P. 1UF 250V 105' F	1
20	CV28	0101-3109-2311	E/C N-P. 1UF 250V 105' F	1
21	CV30	0101-1109-2111	E/C GEN. 1.0UF 160V 105' F	1
22	CV31	0101-1109-2111	E/C GEN. 1.0UF 160V 105' F	1
23	CV32	0101-1109-2111	E/C GEN. 1.0UF 160V 105' F	1
24	CV34	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
25	CV37	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
26	CV38	0111-1103-2322	C/C DISK 0.01UF 2KV Z5U F-K	1
27	CV39	0120-3472-6331	P/C PPN 0.0047UF 630V J F-K	1
28	CV40	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
29	CV41	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
30	CV42	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
31	CV43	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
32	CV48	0111-3101-5105	C/M MULTI 100PF 50V NPO 0805	1
33	CV49	0111-3220-5105	C/M MULTI 22PF 50V NPO 0805	1
34	CV50	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
35	CV51	0111-3220-5105	C/M MULTI 22PF 50V NPO 0805	1
36	CV55	0111-3331-5105	C/M MULTI 330PF 50V NPO 0805	1
37	CV56	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
38	CV58	0111-3331-5105	C/M MULTI 330PF 50V NPO 0805	1
39	CV61	0111-1103-5222	C/C DISK 0.01UF 500V Z5U F-K	1
40	CV62	0111-1101-5212	C/C DISK 100PF 500V Y5P F-K	1
41	CV64	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
42	CV65	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
43	CV66	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
44	CV68	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
45	CV69	0101-1221-1211	E/C GEN. 220UF 16V 105' F	1
46	CV70	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
47	CV71	0101-3229-1511	E/C N-P 2.2UF 50V 105' F	1
48	CV72	0101-1479-1511	E/C GEN. 4.7UF 50V 105' F	1
49	CV76	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
50	CV77	0111-3224-5135	C/M MULTI 0.22UF 50V Y5V 0805	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
51	CV78	0111-3472-5115	C/M MULTI 4700PF 50V X7R 0805	1
52	CV81	0111-1103-5222	C/C DISK 0.01UF 500V Z5U F-K	1
53	CV84	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
54	CV87	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
55	CV88	0111-3479-5105	C/M MULTI 4.7PF 50V NPO 0805	1
56	DV01	0390-5000-1052	GEN. DIODE 1N4148 T	1
57	DV02	0390-5000-1052	GEN. DIODE 1N4148 T	1
58	DV03	0390-5000-9132	GEN. DIODE BAV21 T	1
59	DV04	0390-5000-3202	GEN. DIODE 1N4002F T	1
60	DV05	0390-5000-9132	GEN. DIODE BAV21 T	1
61	DV06	0390-5000-9132	GEN. DIODE BAV21 T	1
62	DV07	0390-5000-1052	GEN. DIODE 1N4148 T	1
63	DV08	0390-5000-1052	GEN. DIODE 1N4148 T	1
64	DV09	0390-5000-1052	GEN. DIODE 1N4148 T	1
65	DV12	0390-5000-1052	GEN. DIODE 1N4148 T	1
66	DV13	0390-5000-1052	GEN. DIODE 1N4148 T	1
67	DV14	0390-5000-1052	GEN. DIODE 1N4148 T	1
68	DV15	0390-5000-1052	GEN. DIODE 1N4148 T	1
69	DV16	0390-5000-1052	GEN. DIODE 1N4148 T	1
70	DV18	0390-5000-6202	GEN. DIODE 1N4003F T	1
71	DV20	0390-5000-1052	GEN. DIODE 1N4148 T	1
72	ICV01	0430-4006-6402	IC M52742ASP SDIP 36PIN	1
73	ICV02	0430-4006-3104	IC LM2412T DIP 11PIN	1
74	ICV02H	1712-0300-0223	VIDEO BD HEAT SINK	1
75	ICV02R	1701-1100-0100	SILICON RUBBER/TO-3P3	1
76	ICV02S	1724-2603-1202	SCREW,BTCW,M3.0X12L,ZN-CC	1
77	ICV02W	1701-1300-0100	TRANSISTOR WASHER/602S	1
78	ICV05	0430-7003-9141	IC D1642 DIP 16PIN V3.0	1
79	ICV06	0430-4000-6104	IC LM324N DIP-14	1
80	JV01	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
81	JV06	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
82	LV01	0344-2280-0501	PEAKING COIL 0.22uH 1/4W J A-T	1
83	LV02	0344-2280-0501	PEAKING COIL 0.22uH 1/4W J A-T	1
84	LV03	0344-2280-0501	PEAKING COIL 0.22uH 1/4W J A-T	1
85	LV04	0344-3390-0601	PEAKING COIL 3.3UH 1/4W K A-T	1
86	LV05	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
87	LV06	0370-0000-1210	FERRITE CORE A6 RH 3.5X9X0.8-T52	1
88	LV07	0370-0000-1210	FERRITE CORE A6 RH 3.5X9X0.8-T52	1
89	LV10	0370-0000-1110	FERRITE CORE W8 R6H 6X10 2 1/2 T	1
90	LV11	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
91	LV12	0130-1009-1450	RES. CF 10ohm 1/4W J A	1
92	LV13	0370-0000-1210	FERRITE CORE A6 RH 3.5X9X0.8-T52	1
93	LV14	0370-0000-1210	FERRITE CORE A6 RH 3.5X9X0.8-T52	1
94	LV15	0344-3390-0601	PEAKING COIL 3.3UH 1/4W K A-T	1
95	LV16	0370-0000-1210	FERRITE CORE A6 RH 3.5X9X0.8-T52	1
96	LV17	0340-1010-0601	PEAKING COIL 100UH 1/2W K A-T	1
97	QV01	0410-2001-7106	TRANSISTOR 2SC1906TZ TO-92 (30V 50mA)	1
98	QV02	0410-2001-7106	TRANSISTOR 2SC1906TZ TO-92 (30V 50mA)	1
99	QV03	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
100	QV04	0410-4000-3105	TRANSISTOR BF422 TO-92 T	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
101	QV05	0410-4000-3105	TRANSISTOR BF422 TO-92 T	1
102	QV06	0410-4000-3105	TRANSISTOR BF422 TO-92 T	1
103	QV07	0410-2001-7106	TRANSISTOR 2SC1906TZ TO-92 (30V 50mA)	1
104	RV01	0130-1001-1858	RES. CF 1.0Kohm 1/8W J 0805	1
105	RV02	0130-1001-1858	RES. CF 1.0Kohm 1/8W J 0805	1
106	RV03	0130-1001-1858	RES. CF 1.0Kohm 1/8W J 0805	1
107	RV04	0130-4700-1858	RES. CF 470ohm 1/8W J 0805	1
108	RV05	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
109	RV06	0130-1800-1858	RES. CF 180ohm 1/8W J 0805	1
110	RV07	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
111	RV08	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
112	RV09	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
113	RV10	0130-4709-1858	RES. CF 47ohm 1/8W J 0805	1
114	RV101	0130-5609-1858	RES. CF 56ohm 1/8W J 0805	1
115	RV102	0130-5609-1858	RES. CF 56ohm 1/8W J 0805	1
116	RV103	0130-5609-1858	RES. CF 56ohm 1/8W J 0805	1
117	RV105	0130-4301-1858	RES. CF 4.3Kohm 1/8W J 0805	1
118	RV109	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
119	RV11	0130-4709-1858	RES. CF 47ohm 1/8W J 0805	1
120	RV114	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
121	RV115	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
122	RV116	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
123	RV12	0130-4700-1858	RES. CF 470ohm 1/8W J 0805	1
124	RV13	0130-4700-1858	RES. CF 470ohm 1/8W J 0805	1
125	RV14	0130-4700-1858	RES. CF 470ohm 1/8W J 0805	1
126	RV15	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
127	RV16	0130-1803-1450	RES. CF 180Kohm 1/4W J A	1
128	RV17	0130-1203-1858	RES. CF 120Kohm 1/8W J 0805	1
129	RV18	0130-1501-1858	RES. CF 1.5Kohm 1/8W J 0805	1
130	RV19	0130-1004-1858	RES. CF 1.0Mohm 1/8W J 0805	1
131	RV20	0130-8209-1858	RES. CF 82ohm 1/8W J 0805	1
132	RV21	0130-1004-1858	RES. CF 1.0Mohm 1/8W J 0805	1
133	RV22	0130-1801-1858	RES. CF 1.8Kohm 1/8W J 0805	1
134	RV23	0130-1004-1858	RES. CF 1.0Mohm 1/8W J 0805	1
135	RV24	0130-1202-1450	RES. CF 12Kohm 1/4W J A	1
136	RV25	0130-2201-1858	RES. CF 2.2Kohm 1/8W J 0805	1
137	RV26	0130-8209-1858	RES. CF 82ohm 1/8W J 0805	1
138	RV27	0130-8209-1858	RES. CF 82ohm 1/8W J 0805	1
139	RV28	0130-1200-1450	RES. CF 120ohm 1/4W J A	1
140	RV29	0130-4701-1858	RES. CF 4.7Kohm 1/8W J 0805	1
141	RV30	0130-1200-1450	RES. CF 120ohm 1/4W J A	1
142	RV31	0130-1200-1450	RES. CF 120ohm 1/4W J A	1
143	RV32	0111-3104-5135	C/M MULTI 0.1UF 50V Y5V 0805	1
144	RV33	0130-1803-1450	RES. CF 180Kohm 1/4W J A	1
145	RV34	0130-1803-1450	RES. CF 180Kohm 1/4W J A	1
146	RV35	0130-5600-1450	RES. CF 560ohm 1/4W J A	1
147	RV36	0130-3300-1858	RES. CF 330ohm 1/8W J 0805	1
148	RV37	0130-3300-1858	RES. CF 330ohm 1/8W J 0805	1
149	RV38	0130-3300-1858	RES. CF 330ohm 1/8W J 0805	1
150	RV42	0130-4701-1858	RES. CF 4.7Kohm 1/8W J 0805	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
151	RV43	0130-1001-1858	RES. CF 1.0Kohm 1/8W J 0805	1
152	RV44	0130-2203-1858	RES. CF 220Kohm 1/8W J 0805	1
153	RV45	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
154	RV46	0130-2203-1858	RES. CF 220Kohm 1/8W J 0805	1
155	RV47	0130-2203-1858	RES. CF 220Kohm 1/8W J 0805	1
156	RV48	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
157	RV53	0130-3302-1450	RES. CF 33Kohm 1/4W J A	1
158	RV54	0130-3302-1450	RES. CF 33Kohm 1/4W J A	1
159	RV55	0130-3302-1450	RES. CF 33Kohm 1/4W J A	1
160	RV56	0130-1004-1858	RES. CF 1.0Mohm 1/8W J 0805	1
161	RV57	0130-1004-1858	RES. CF 1.0Mohm 1/8W J 0805	1
162	RV58	0130-1004-1858	RES. CF 1.0Mohm 1/8W J 0805	1
163	RV59	0130-1203-1858	RES. CF 120Kohm 1/8W J 0805	1
164	RV60	0130-1203-1858	RES. CF 120Kohm 1/8W J 0805	1
165	RV61	0130-1203-1858	RES. CF 120Kohm 1/8W J 0805	1
166	RV62	0130-1003-1250	RES. CF 100Kohm 1/2W J A	1
167	RV63	0130-1001-1250	RES. CF 1.0Kohm 1/2W J A	1
168	RV66	0130-4700-1858	RES. CF 470ohm 1/8W J 0805	1
169	RV67	0130-4700-1858	RES. CF 470ohm 1/8W J 0805	1
170	RV68	0130-4700-1858	RES. CF 470ohm 1/8W J 0805	1
171	RV69	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
172	RV70	0130-1002-1858	RES. CF 10Kohm 1/8W J 0805	1
173	RV71	0130-1002-1858	RES. CF 10Kohm 1/8W J 0805	1
174	RV72	0130-1002-1858	RES. CF 10Kohm 1/8W J 0805	1
175	RV73	0130-3301-1858	RES. CF 3.3Kohm 1/8W J 0805	1
176	RV74	0130-4709-1858	RES. CF 47ohm 1/8W J 0805	1
177	RV75	0130-4709-1858	RES. CF 47ohm 1/8W J 0805	1
178	RV77	0130-3301-1858	RES. CF 3.3Kohm 1/8W J 0805	1
179	RV81	0130-1001-1858	RES. CF 1.0Kohm 1/8W J 0805	1
180	RV83	0130-3909-1450	RES. CF 39ohm 1/4W J A	1
181	RV84	0130-3909-1450	RES. CF 39ohm 1/4W J A	1
182	RV85	0130-3909-1450	RES. CF 39ohm 1/4W J A	1
183	RV86	0130-2201-1858	RES. CF 2.2Kohm 1/8W J 0805	1
184	RV87	0130-4701-1858	RES. CF 4.7Kohm 1/8W J 0805	1
185	RV89	0130-1000-1858	RES. CF 100ohm 1/8W J 0805	1
186	RV91	0130-4302-1858	RES. CF 43Kohm 1/8W J 0805	1
187	RV92	0130-1002-1858	RES. CF 10Kohm 1/8W J 0805	1
188	RV94	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
189	RV95	0130-5602-1858	RES. CF 56Kohm 1/8W J 0805	1
190	RV96	0130-4301-1858	RES. CF 4.3Kohm 1/8W J 0805	1
191	RV97	0130-4301-1858	RES. CF 4.3Kohm 1/8W J 0805	1
192	RV98	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
193	RV99	0130-3309-1858	RES. CF 33ohm 1/8W J 0805	1
194	SGV01	0270-0002-0140	SPARK GAP 200V T	1
195	SGV02	0270-0002-0140	SPARK GAP 200V T	1
196	SGV03	0270-0002-0140	SPARK GAP 200V T	1
197	SGV04	0270-0001-2220	SPARK GAP 1.2KV A	1
198	SGV05	0270-0003-0104	SPARK GAP 300V T R	1
199	WV01	0451-2500-0744	WAFER 2.50MM 7P 90' KINK	1
200	WV02	0451-2500-1244	WAFER 2.50MM 12P 90' KINK	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
201	WV04	0452-1000-0296	WAFER 10MM 2P(BLACK)	1
202	WV05	0261-0000-0054	CRT SOCKET ISDW02S MITSUBISHI	1
203	WV08	0451-2500-0244	WAFER 2.50MM 2P 90' KINK	1

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11.7. 3019-0212-0160 ASS'Y MAIN/PWR/CTRL BD P95f

ITEM	LOC	PART NO	DESCRPTION	QTY
1		0174-2240-0333	PCB MAIN/PWR/CTRL BD K1 337x271x1.6t	1
2		1712-0100-0156	CHASSIS BRACKET LEFT	1
3		1712-0100-0168	CHASSIS BRACKET RIGHT	1
4	CA01	0122-0474-2702	P/C X2 0.47UF 275V K B	1
5	CA02	0122-1472-4000	D/C Y 4700PF 400V M N-F	1
6	CA03	0122-1472-4000	D/C Y 4700PF 400V M N-F	1
7	CA04	0101-1221-4503	E/C GEN. 220UF 450V 85' S	1
8	CA06	0111-1471-5112	C/C DISK 470PF 50V Y5P F-K	1
9	CA07	0101-1470-1211	E/C GEN. 47UF 16V 105' F	1
10	CA08	0111-1102-1312	C/C DISK 1000PF 1KV Y5P F-K	1
11	CA09	0101-1330-1311	E/C GEN. 33UF 25V 105' F	1
12	CA10	0101-1102-1312	E/C GEN. 1000UF 25V 105' K	1
13	CA11	0111-1472-1322	C/C DISK 4700PF 1KV Z5U F-K	1
14	CA12	0111-1221-1312	C/C DISK 220PF 1KV Y5P F-K	1
15	CA13	0111-1471-5112	C/C DISK 470PF 50V Y5P F-K	1
16	CA14	0111-1223-5122	C/C DISK 0.022UF 50V Z5U F-K	1
17	CA15	0101-1331-1211	E/C GEN. 330UF 16V 105' F	1
18	CA16	0120-5103-0531	P/C MEF 0.01UF 50V J F-K (T)	1
19	CA17	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
20	CA18	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
21	CA19	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
22	CA20	0101-1101-2012	E/C GEN. 100UF 100V 105' K	1
23	CA21	0101-1221-2012	E/C GEN. 220UF 100V 105'K	1
24	CA22	0101-1102-1312	E/C GEN. 1000UF 25V 105' K	1
25	CA23	0101-1101-1311	E/C GEN. 100UF 25V 105' F	1
26	CA24	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
27	CA25	0101-1471-1211	E/C GEN. 470UF 16V 105' F	1
28	CA26	0111-1101-5212	C/C DISK 100PF 500V Y5P F-K	1
29	CA27	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
30	CA29	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
31	CA30	0111-1471-5112	C/C DISK 470PF 50V Y5P F-K	1
32	CA31	0122-0103-2502	P/C X2 0.01UF 250V K B	1
33	CA32	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
34	CA33	0122-1332-2522	D/C Y 3300PF 250V M B	1
35	CA34	0122-1332-2522	D/C Y 3300PF 250V M B	1
36	CA35	0111-1102-1312	C/C DISK 1000PF 1KV Y5P F-K	1
37	CA36	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
38	CA37	0101-1102-1312	E/C GEN. 1000UF 25V 105' K	1
39	CA38	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
40	CA39	0111-1331-1312	C/C DISK 330PF 1KV Y5P F-K	1
41	CA40	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
42	CA41	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1
43	CA42	0101-1479-1511	E/C GEN. 4.7UF 50V 105' F	1
44	CA43	0120-3102-6331	P/C PPN 0.001UF 630V J F-K	1
45	CA50	0101-1101-2012	E/C GEN. 100UF 100V 105' K	1
46	CB01	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
47	CB02	0121-2182-1032	P/C R82 1800PF 100V J B	1
48	CB03	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
49	CB05	0120-5154-0531	P/C MEF 0.15UF 50V J F-K	1
50	CB06	0121-2823-1032	P/C R82 0.082UF 100V J B	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
51	CB07	0121-2223-1032	P/C R82 0.022UF 100V J B	1
52	CB08	0121-2822-1032	P/C R82 0.0082UF 100V J B	1
53	CB09	0101-1478-1511	E/C GEN. 0.47UF 50V 105' F	1
54	CB10	0120-5103-0531	P/C MEF 0.01UF 50V J F-K (T)	1
55	CB11	0121-2332-1032	P/C R82 3300PF 100V J B	1
56	CB12	0111-1332-5112	C/C DISK 3300PF 50V Y5P F-K	1
57	CB13	0101-1471-1311	E/C GEN. 470UF 25V 105' F	1
58	CB14	0101-1101-1411	E/C GEN. 100UF 35V 105' F	1
59	CB15	0120-5224-1031	P/C MEF 0.22UF 100V J F-K	1
60	CB16	0101-1470-1211	E/C GEN. 47UF 16V 105' F	1
61	CB17	0101-1102-1312	E/C GEN. 1000UF 25V 105' K	1
62	CB19	0111-1472-5112	C/C DISK 4700PF 50V Y5P F-K	1
63	CB20	0111-1472-5112	C/C DISK 4700PF 50V Y5P F-K	1
64	CB21	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
65	CB22	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
66	CB23	0120-5224-1031	P/C MEF 0.22UF 100V J F-K	1
67	CB24	0111-2301-5102	C/C DISK 300PF 50V NPO F-K	1
68	CC04	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
69	CC05	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
70	CC06	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
71	CC07	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
72	CC08	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
73	CC09	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
74	CC10	0111-2220-5102	C/C DISK 22PF 50V NPO F-K	1
75	CC11	0111-2220-5102	C/C DISK 22PF 50V NPO F-K	1
76	CC13	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
77	CC14	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
78	CC15	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
79	CC16	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
80	CC17	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
81	CC20	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
82	CC21	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
83	CC23	0111-2220-5102	C/C DISK 22PF 50V NPO F-K	1
84	CC25	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
85	CC27	0111-2680-5102	C/C DISK 68PF 50V NPO F-K	1
86	CC28	0111-2680-5102	C/C DISK 68PF 50V NPO F-K	1
87	CC30	0101-1102-1312	E/C GEN. 1000UF 25V 105' K	1
88	CC39	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
89	CC40	0111-2101-5102	C/C DISK 100PF 50V NPO F-K	1
90	CC41	0111-2101-5102	C/C DISK 100PF 50V NPO F-K	1
91	CE03	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1
92	CE04	0101-3109-1511	E/C N-P 1UF 50V 105' F	1
93	CE05	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
94	CE06	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
95	CE10	0101-1101-1311	E/C GEN. 100UF 25V 105' F	1
96	CE11	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1
97	CE12	0101-3109-1511	E/C N-P 1UF 50V 105' F	1
98	CE13	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1
99	CE14	0101-3109-1511	E/C N-P 1UF 50V 105' F	1
100	CE15	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
101	CE16	0101-3109-1511	E/C N-P 1UF 50V 105' F	1
102	CE18	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1
103	CE20	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
104	CG08	0101-1220-1211	E/C GEN. 22UF 16V 105' F	1
105	CG09	0101-1479-1511	E/C GEN. 4.7UF 50V 105' F	1
106	CG10	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
107	CG11	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
108	CG12	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
109	CG13	0120-3472-6331	P/C PPN 0.0047UF 630V J F-K	1
110	CG15	0111-1182-5112	C/C DISK 1800PF 50V Y5P F-K	1
111	CG17	0101-1479-1511	E/C GEN. 4.7UF 50V 105' F	1
112	CG19	0101-1220-2212	E/C GEN. 22UF 200V 105' K	1
113	CG20	0120-5103-2531	P/C MEF 0.01UF 250V J F-K	1
114	CG21	0120-5104-4031	P/C MEF 0.1UF 400V J F-K	1
115	CG23	0101-1479-2211	E/C GEN. 4.7UF 200V 105' F	1
116	CG24	0111-1102-5212	C/C DISK 1000PF 500V Y5P F-K	1
117	CG26	0111-1101-5212	C/C DISK 100PF 500V Y5P F-K	1
118	CG27	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
119	CG28	0101-1470-1211	E/C GEN. 47UF 16V 105' F	1
120	CG29	0120-5224-1031	P/C MEF 0.22UF 100V J F-K	1
121	CG30	0101-1100-2011	E/C GEN. 10UF 100V 105' F	1
122	CG31	0101-1221-2012	E/C GEN. 220UF 100V 105'K	1
123	CG32	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
124	CG33	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1
125	CG35	0120-5103-4031	P/C MEF 0.01UF 400V J F-K	1
126	CG36	0101-1470-1211	E/C GEN. 47UF 16V 105' F	1
127	CG39	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
128	CG41	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1
129	CG42	0111-1682-5112	C/C DISK 6800PF 50V Y5P F-K	1
130	CH01	0111-2271-5102	C/C DISK 270PF 50V NPO F-K	1
131	CH03	0120-3102-1031	P/C PPN 0.001UF 100V J F-K	1
132	CH04	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
133	CH05	0101-1331-1312	E/C GEN. 330UF 25V 105' K	1
134	CH06	0111-1471-5112	C/C DISK 470PF 50V Y5P F-K	1
135	CH07	0120-2472-0531	P/C PEN 0.0047UF 50V J F-K	1
136	CH08	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
137	CH09	0101-1470-1311	E/C GEN. 47UF 25V 105' F	1
138	CH10	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
139	CH11	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
140	CH12	0101-1109-2311	E/C GEN. 1.0UF 250V 105' F	1
141	CH13	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
142	CH15	0101-1101-1311	E/C GEN. 100UF 25V 105' F	1
143	CH18	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
144	CH20	0101-1102-1312	E/C GEN. 1000UF 25V 105' K	1
145	CH21	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
146	CH22	0120-4472-9231	P/C PPS 0.0047UF 2KV J F-K	1
147	CH23	0120-2102-1031	P/C PEN 0.001UF 100V J F-K (T)	1
148	CH25	0111-1472-1322	C/C DISK 4700PF 1KV Z5U F-K	1
149	CH26	0120-5105-0531	P/C MEF 1.0UF 50V J F-K	1
150	CH27	0101-1100-1511	E/C GEN. 10UF 50V 105' F	1

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151	CH30	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
152	CH33	0120-2102-0531	P/C PEN 0.001UF 50V J F-K (T)	1
153	CH35	0101-1100-1311	E/C GEN. 10UF 25V 105' F	1
154	CH36	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
155	CH37	0121-8104-4031	P/C MPSA 0.1UF 400V J F-K	1
156	CH38	0101-1109-1511	E/C GEN. 1.0UF 50V 105'F	1
157	CH39	0120-9184-4031	P/C MPS 0.18UF 400V J F-K	1
158	CH40	0101-1229-1511	E/C GEN. 2.2UF 50V 105' F	1
159	CH41	0120-9474-4031	P/C MPS 0.47UF 400V J F-K	1
160	CH43	0120-9155-4031	P/C MPS 1.5UF 400V J F-K	1
161	CH44	0121-8104-4031	P/C MPSA 0.1UF 400V J F-K	1
162	CH45	0121-8823-4031	P/C MPSA 0.082UF 400V J F-K	1
163	CH46	0111-2101-1312	C/C DISK 100PF 1KV SL F-K	1
164	CH62	0101-1221-2012	E/C GEN. 220UF 100V 105'K	1
165	CH64	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
166	CH65	0111-2101-5102	C/C DISK 100PF 50V NPO F-K	1
167	CX01	0101-1101-1211	E/C GEN. 100UF 16V 105' F	1
168	CX02	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
169	CX03	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
170	CX04	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
171	CX05	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
172	CX06	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
173	CX07	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
174	CX08	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
175	CX09	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
176	CX10	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
177	CX11	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
178	CX12	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
179	CX13	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
180	DA05	0390-3000-4022	FAST DIODE BA159 T	1
181	DA06	0390-3000-1012	FAST DIODE 10DF2 T	1
182	DA07	0390-3000-1012	FAST DIODE 10DF2 T	1
183	DA08	0390-3002-5012	FAST DIODE 10DF6 T	1
184	DA09	0390-5000-1052	GEN. DIODE 1N4148 T	1
185	DA10	0390-5000-1052	GEN. DIODE 1N4148 T	1
186	DA11	0390-5000-1052	GEN. DIODE 1N4148 T	1
187	DA12	0390-5000-1052	GEN. DIODE 1N4148 T	1
188	DA13	0390-5000-1052	GEN. DIODE 1N4148 T	1
189	DA14	0390-5000-1052	GEN. DIODE 1N4148 T	1
190	DA15	0390-3002-8022	FAST DIODE FUF5402 T	1
191	DA16	0390-3002-9022	FAST DIODE FUF5404 T	1
192	DA16H	1712-0600-0041	HEAT SINK (60L*30W*1.2T)	1
193	DA17	3019-0022-0159	ASS'Y DIODE OPTION BD FOR DA17	1
194	DA18	0390-5000-3202	GEN. DIODE 1N4002F T	1
195	DA19	0390-3000-1012	FAST DIODE 10DF2 T	1
196	DA20	0390-5000-1052	GEN. DIODE 1N4148 T	1
197	DA21	0390-5000-1052	GEN. DIODE 1N4148 T	1
198	DA23	0390-3003-2052	FAST DIODE BYT53G T	1
199	DA24	0390-5000-1052	GEN. DIODE 1N4148 T	1
200	DA25	0390-5000-1052	GEN. DIODE 1N4148 T	1

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201	DA26	0390-5000-1052	GEN. DIODE 1N4148 T	1
202	DA28	0390-6000-1012	SCHOTTKY DIODE 11DQ06 T	1
203	DA35	0390-3002-5012	FAST DIODE 10DF6 T	1
204	DB01	0390-5000-1052	GEN. DIODE 1N4148 T	1
205	DB02	0390-5000-3202	GEN. DIODE 1N4002F T	1
206	DB03	0390-5000-1052	GEN. DIODE 1N4148 T	1
207	DB10	0390-5000-1052	GEN. DIODE 1N4148 T	1
208	DC01	0390-5000-1052	GEN. DIODE 1N4148 T	1
209	DC03	0390-5000-1052	GEN. DIODE 1N4148 T	1
210	DG01	0390-5000-1052	GEN. DIODE 1N4148 T	1
211	DG02	0390-5000-1052	GEN. DIODE 1N4148 T	1
212	DG03	0390-3002-9022	FAST DIODE FUF5404 T	1
213	DG04	0390-5000-1052	GEN. DIODE 1N4148 T	1
214	DG06	0390-3003-2052	FAST DIODE BYT53G T	1
215	DG10	0390-5000-1052	GEN. DIODE 1N4148 T	1
216	DG11	0390-5000-1052	GEN. DIODE 1N4148 T	1
217	DG12	0390-5000-1052	GEN. DIODE 1N4148 T	1
218	DG13	0390-5000-1052	GEN. DIODE 1N4148 T	1
219	DG14	0390-3000-1012	FAST DIODE 10DF2 T	1
220	DG16	0390-3002-9022	FAST DIODE FUF5404 T	1
221	DG17	0390-5000-9132	GEN. DIODE BAV21 T	1
222	DG18	0390-5000-9132	GEN. DIODE BAV21 T	1
223	DG20	0390-5000-1052	GEN. DIODE 1N4148 T	1
224	DH01	0390-5000-1052	GEN. DIODE 1N4148 T	1
225	DH02	0390-5000-1052	GEN. DIODE 1N4148 T	1
226	DH03	0390-5000-1052	GEN. DIODE 1N4148 T	1
227	DH04	0390-3000-1012	FAST DIODE 10DF2 T	1
228	DH05	0390-5000-1052	GEN. DIODE 1N4148 T	1
229	DH06	0390-3004-8022	FAST DIODE FUF5408 T	1
230	DH08	0390-2000-2180	DAMPER DIODE FMP-G5FS N-F	1
231	DH08S	1724-1703-0802	SCREW,PB,M3.0X8L,ZN-CC	1
232	DH09	0390-3002-8022	FAST DIODE FUF5402 T	1
233	DH10	0390-5000-1052	GEN. DIODE 1N4148 T	1
234	DH11	0390-6000-1012	SCHOTTKY DIODE 11DQ06 T	1
235	DH12	0390-5000-1052	GEN. DIODE 1N4148 T	1
236	DH13	0390-5000-1052	GEN. DIODE 1N4148 T	1
237	DH14	0390-5000-1052	GEN. DIODE 1N4148 T	1
238	DH15	0390-5000-1052	GEN. DIODE 1N4148 T	1
239	FA01	0180-4402-5201	FUSE T-L 250V 4A 5*20MM GLASS 5ST4	1
240	FA011	0190-0000-0010	FUSE CLIP 5*20MM	2
241	FG01	0370-0000-0710	FERRITE CORE RH 16X17X9	1
242	FG02	0370-0000-0510	FERRITE CORE 17.5X28.5X9.5	1
243	FG02C	1701-1400-9800	WIRE SADDLE/ YJ98	1
244	F01	0460-1701-0410	WH 1007#24 250mm BLK	1
245	G01	0460-2001-0092	WH 1015#18 320MM BLACK T/C	1
246	G11	0460-2001-0240	WH 1015#18 60MM BLACK	1
247	ICA01	0430-4004-0230	IC TOP221Y TO-220 3PIN	1
248	ICA02	0430-7000-3107	IC UC3842N DIP-8 PIN	1
249	ICA03	0430-6000-3210	IC MC7805CT TO-220 3 PIN	1
250	ICA04	0430-7000-1110	IC 4N35 DIP 6PIN	1

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251	ICA05	0430-6000-5207	IC LM7812 TO-220 3 PIN	1
252	ICA05H	1712-0400-1400	HEAT SINK (23.5WX16.5TX25H)	1
253	ICA05S	1724-1703-0602	SCREW,PB,M3.0X6L,ZN-CC	1
254	ICA06	0430-0000-2110	IC MC14013BCP DIP-14	1
255	ICA07	0430-6000-4310	IC TL431CLP TO-92 3PIN T	1
256	ICB01	0430-4005-2109	IC TDA4856/V2 SDIP 32PIN	1
257	ICB02	0430-4001-7107	IC TDA8172 DIP 7PIN	1
258	ICB02H	1712-0300-0082	HEAT SINK FOR (80W*39T*69H)	1
259	ICB02R	1701-1100-0801	SILICON RUBBER /TO1633(30)	1
260	ICB02S	1724-2603-1202	SCREW,BTCW,M3.0X12L,ZN-CC	1
261	ICB02W	1701-0600-0200	TRANSISTOR COVER / TR-08	1
262	ICC01	0430-5002-6142	IC NT68P62 DIP 40PIN (OTP)	1
263	ICC01S	0201-2544-0000	IC SOCKET 2.54MM 40PIN	1
264	ICC02	0430-3000-4117	IC 24LC08B/P DIP 8PIN	1
265	ICE01	0430-4000-6104	IC LM324N DIP-14	1
266	ICG01	0430-4000-1104	IC LM358 DIP-8	1
267	ICG02	0430-4000-1104	IC LM358 DIP-8	1
268	ICH01	0430-3000-1115	IC TLC555CP DIP 8PIN	1
269	ICX01	0430-4005-5109	IC TDA8444P/N4 DIP 16PIN	1
270	JH01	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
271	JPA01	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
272	JPC01	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
273	J001	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
274	J002	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
275	J003	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
276	J004	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
277	J005	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
278	J006	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
279	J007	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
280	J008	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
281	J009	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
282	J010	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
283	J011	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
284	J012	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
285	J013	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
286	J014	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
287	J015	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
288	J016	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
289	J017	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
290	J018	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
291	J019	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
292	J020	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
293	J021	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
294	J022	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
295	J023	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
296	J024	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
297	J025	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
298	J026	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
299	J027	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
300	J028	0230-2009-0000	JUMPER WIRE 20*0.6MM	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
301	J029	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
302	J030	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
303	J032	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
304	J033	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
305	J034	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
306	J035	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
307	J036	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
308	J037	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
309	J038	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
310	J039	0230-2509-0000	JUMPER WIRE 25*0.6MM	1
311	J040	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
312	J041	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
313	J042	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
314	J043	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
315	J044	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
316	J045	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
317	J046	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
318	J047	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
319	J048	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
320	J049	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
321	J050	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
322	J051	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
323	J052	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
324	J053	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
325	J054	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
326	J055	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
327	J056	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
328	J057	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
329	J058	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
330	J059	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
331	J060	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
332	J061	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
333	J062	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
334	J063	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
335	J064	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
336	J065	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
337	J066	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
338	J067	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
339	J068	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
340	J069	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
341	J070	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
342	J071	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
343	J072	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
344	J073	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
345	J074	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
346	J075	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
347	J076	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
348	J077	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
349	J079	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
350	J080	0230-2009-0000	JUMPER WIRE 20*0.6MM	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
351	J081	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
352	J082	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
353	J083	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
354	J084	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
355	J085	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
356	J086	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
357	J087	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
358	J088	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
359	J089	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
360	J090	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
361	J091	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
362	J092	0230-2259-0000	JUMPER WIRE 22.5X0.6MM	1
363	J093	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
364	J094	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
365	J095	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
366	J096	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
367	J097	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
368	J098	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
369	J099	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
370	J100	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
371	J101	0230-1759-0000	JUMPER WIRE 17.5*0.6MM	1
372	J102	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
373	J103	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
374	J104	0230-2009-0000	JUMPER WIRE 20*0.6MM	1
375	J105	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
376	J106	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
377	J107	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
378	J108	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
379	J109	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
380	J110	0230-1259-0000	JUMPER WIRE 12.5*0.6mm	1
381	J111	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
382	J112	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
383	J113	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
384	J114	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
385	J116	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
386	J117	0230-7508-0000	JUMPER WIRE 7.5*0.6MM	1
387	LA01	0360-1000-0010	RING CORE L:250UH 4A	1
388	LA02	0360-1000-0010	RING CORE L:250UH 4A	1
389	LA03	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
390	LA04	0370-0000-1610	BEAD CORE W4B RH 3.5X6X1.0 T	1
391	LA05	0370-0000-1610	BEAD CORE W4B RH 3.5X6X1.0 T	1
392	LA06	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
393	LA07	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
394	LA10	0361-1000-0180	DRUM CORE L:48UH 2A(10*16)	1
395	LC01	0344-2290-0601	PEAKING COIL 2.2UH 1/4W K A-T	1
396	LG01	0370-0000-0410	BEAD CORE RH 3.5X4.7X1.0MM	1
397	LH01	0350-0130-0070	X'FMR EI30 200uH 3A	1
398	LH02	0354-0125-0060	X'FMR H-CEN EI25 7.0MH 0.45A	1
399	LH03	0230-1009-0000	JUMPER WIRE 10*0.6mm	1
400	LH05	0381-0000-0150	LINEARITY COIL 10.7uH -4A	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
401	LH06	0361-1000-0150	DRUM CORE L:54UH 10X16 AT897D-1	1
402	LH07	0361-1000-0020	DRUM CORE L:2MH 0.5A(10*16)	1
403	MB02	1701-1402-0300	WIRE SADDLE/ YJ-203S	1
404	MB05	1712-0100-0590	CHASSIS BRACKET FRONT	1
405	MB06	1712-0100-3201	CHASSIS BRACKET REAR/AT897D	1
406	MB10	1724-2603-0602	SCREW,BTCW,M3.0X6L,ZN-CC	22
407	MB12	1724-3804-0802	SCREW,PBATW,M4.0X8L,ZZ-CC	1
408	MB15	1701-1500-0300	CABLE CLIPS/TA11-4	1
409	MB16	1712-0100-1490	POWER FACTOR BRACKET	1
410	PRC01	0141-1002-1850	ARRAY RES. A(X) 10Kohm 1/8W J 8P	1
411	QA01	0420-1001-2501	POWER MOS IRFPE50 TO-3P	1
412	QA01H	1712-0400-0280	HEAT SINK 60W*15T*80H-40H	1
413	QA01R	1701-1100-0100	SILICON RUBBER/TO-3P3	1
414	QA01S	1724-1703-1002	SCREW,PB,M3.0X10L,ZN-CC	1
415	QA02	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
416	QA04	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
417	QA07	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
418	QA09	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
419	QA10	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
420	QA11	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
421	QB03	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
422	QB04	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
423	QB05	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
424	QC05	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
425	QC06	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
426	QC07	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
427	QC08	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
428	QC10	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
429	QC11	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
430	QC14	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
431	QE01	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
432	QE02	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
433	QE05	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
434	QE06	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
435	QE07	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
436	QE08	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
437	QE09	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
438	QE10	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
439	QG01	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
440	QG03	0420-1001-5401	POWER MOS IRF740 TO-220 3PIN	1
441	QG03H	1712-0400-0241	HEAT SINK (60.1W*45H*15T) GS815	1
442	QG03R	1701-1100-0801	SILICON RUBBER /TO1633(30)	1
443	QG03S	1724-1703-1202	SCREW,PB,M3.0X12L,ZN-CC	1
444	QG03W	1701-0600-0200	TRANSISTOR COVER / TR-08	1
445	QG04	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
446	QG05	0410-4000-2111	TRANSISTOR BF421 TO-92 T	1
447	QG06	0410-4000-1111	TRANSISTOR BF420 TO-92 T	1
448	QG07	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
449	QG08	0410-4000-3105	TRANSISTOR BF422 TO-92 T	1
450	QG09	0410-3000-3306	TRANSISTOR 2SD669AC TO-126	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
451	QG09H	1712-0400-0202	HEAT SINK (15W*11T*40.0H)	1
452	QG09S	1724-1703-0602	SCREW,PB,M3.0X6L,ZN-CC	1
453	QG10	0410-1000-1306	TRANSISTOR 2SB649AC TO-126	1
454	QG10H	1712-0400-0202	HEAT SINK (15W*11T*40.0H)	1
455	QG10S	1724-1703-0602	SCREW,PB,M3.0X6L,ZN-CC	1
456	QG11	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
457	QG12	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
458	QG13	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
459	QG14	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
460	QG15	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
461	QG16	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
462	QG17	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
463	QG18	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
464	QG19	0410-4000-1111	TRANSISTOR BF420 TO-92 T	1
465	QG20	0410-4000-2111	TRANSISTOR BF421 TO-92 T	1
466	QH01	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
467	QH02	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
468	QH05	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
469	QH06	0410-2001-5516	TR NPN 2SC5584 1500V 20A TOP-3L	1
470	QH06H1	1712-0400-0220	HEAT SINK (84W*100H*15T) GS815	1
471	QH06H2	1712-0300-0231	HEAT SINK FOR EMI GS815	1
472	QH06R	1701-1100-1000	SILICON RUBBER / TO-3025	1
473	QH06S1	1724-1703-0802	SCREW,PB,M3.0X8L,ZN-CC	1
474	QH06S2	1724-2603-1002	SCREW,BTCW,M3.0X10L,ZN-CC	10
475	QH07	0410-6000-1311	TRANSISTOR BD139 TO-126	1
476	QH07N	1910-3005-0002	NUT M3.0X0.5,ZN-CC	1
477	QH07S	1724-1703-0802	SCREW,PB,M3.0X8L,ZN-CC	1
478	QH08	0410-6000-2311	TRANSISTOR BD140 TO-126	1
479	QH12	0420-1000-2407	POWER MOS IRF640 TO-220	1
480	QH13	0420-1000-2407	POWER MOS IRF640 TO-220	1
481	QH13H	1712-0400-0202	HEAT SINK (15W*11T*40.0H)	1
482	QH13R	1701-1100-0200	SILICON RUBBER/TO-2203	1
483	QH13S	1724-1703-0602	SCREW,PB,M3.0X6L,ZN-CC	1
484	QH13W	1701-1300-0100	TRANSISTOR WASHER/602S	1
485	QH14	0420-1000-2407	POWER MOS IRF640 TO-220	1
486	QH14H	1712-0400-0202	HEAT SINK (15W*11T*40.0H)	1
487	QH14R	1701-1100-0200	SILICON RUBBER/TO-2203	1
488	QH14S	1724-1703-0602	SCREW,PB,M3.0X6L,ZN-CC	1
489	QH14W	1701-1300-0100	TRANSISTOR WASHER/602S	1
490	QH15	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
491	QH16	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
492	QH17	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
493	QH18	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
494	QH19	0420-1000-1401	POWER MOS IRF630 TO-220	1
495	QH20	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
496	QH21	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
497	QH22	0420-1001-5401	POWER MOS IRF740 TO-220 3PIN	1
498	QH22H	1712-0400-0270	HEAT SINK (23.5WX16.5TX50H)	1
499	QH22R	1701-1100-0801	SILICON RUBBER /TO1633(30)	1
500	QH22S	1724-1703-1202	SCREW,PB,M3.0X12L,ZN-CC	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
501	QH22W	1701-0600-0200	TRANSISTOR COVER / TR-08	1
502	QH24	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
503	QH25	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
504	QH26	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
505	QH28	0410-6000-1311	TRANSISTOR BD139 TO-126	1
506	QH28H	1712-0400-0100	HEAT SINK (12WX5TX22H)	1
507	QH28S	1724-1703-0602	SCREW,PB,M3.0X6L,ZN-CC	1
508	QX01	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
509	QX02	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
510	QX03	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
511	QX04	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
512	QX05	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
513	QX06	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
514	QX07	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
515	QX08	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
516	QX09	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
517	QX10	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
518	QX11	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
519	QX12	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
520	QX13	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
521	QX14	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
522	QX15	0410-0000-2106	TRANSISTOR 2SA673AC TO-92 T	1
523	QX16	0410-2000-3106	TRANSISTOR 2SC1213AC TO-92 T	1
524	RA01	0130-1004-1250	RES. CF 1.0Mohm 1/2W J A	1
525	RA03	0130-4702-0152	RES. CF 47Kohm 1W J A-FK	1
526	RA04	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
527	RA06	0130-3309-1450	RES. CF 33ohm 1/4W J A	1
528	RA07	0130-4708-1450	RES. CF 4.7ohm 1/4W J A	1
529	RA08	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
530	RA09	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
531	RA10	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
532	RA11	0133-0188-0252	RES. MOF(M) 0.18ohm 2W J A-FK	1
533	RA12	0130-2702-1850	RES. CF 27Kohm 1/8W J A	1
534	RA13	0130-1202-1450	RES. CF 12Kohm 1/4W J A	1
535	RA14	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
536	RA15	0130-1003-1850	RES. CF 100Kohm 1/8W J A	1
537	RA16	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
538	RA17	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
539	RA18	0130-1009-1450	RES. CF 10ohm 1/4W J A	1
540	RA19	0130-1009-1450	RES. CF 10ohm 1/4W J A	1
541	RA20	0130-2201-1450	RES. CF 2.2Kohm 1/4W J A	1
542	RA21	0130-3309-1250	RES. CF 33ohm 1/2W J A	1
543	RA22	0132-1203-0152	RES. MOF 120Kohm 1W J A-FK	1
544	RA23	0132-6202-0112	RES. MOF 62Kohm 1W F A-FK	1
545	RA24	0131-2001-1410	RES. MF 2.00Kohm 1/4W F A	1
546	RA25	0130-2203-1850	RES. CF 220Kohm 1/8W J A	1
547	RA26	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
548	RA27	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
549	RA28	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
550	RA29	0130-1000-1850	RES. CF 100ohm 1/8W J A	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
551	RA31	0130-4701-1250	RES. CF 4.7Kohm 1/2W J A	1
552	RA32	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
553	RA33	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
554	RA34	0130-1009-1450	RES. CF 10ohm 1/4W J A	1
555	RA35	0132-6800-0252	RES. MOF 680ohm 2W J A-FK	1
556	RA36	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
557	RA38	0132-0338-0252	RES. MOF 0.33ohm 2W J A-FK	1
558	RA40	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
559	RA41	0132-6802-0252	RES. MOF 68Kohm 2W J A-FK	1
560	RA42	0132-6802-0252	RES. MOF 68Kohm 2W J A-FK	1
561	RA43	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
562	RA44	0130-1008-1850	RES. CF 1.0ohm 1/8W J A	1
563	RA45	0130-2000-1850	RES. CF 200ohm 1/8W J A	1
564	RA46	0130-1009-0154	RES. CF 10ohm 1W J R-K	1
565	RA47	0131-2612-1410	RES. MF 26.1Kohm 1/4W F A	1
566	RA48	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
567	RA49	0130-2201-1850	RES. CF 2.2Kohm 1/8W J A	1
568	RA50	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
569	RA51	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
570	RA52	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
571	RA68	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
572	RB01	0130-4701-1450	RES. CF 4.7Kohm 1/4W J A	1
573	RB02	0130-1802-1850	RES. CF 18Kohm 1/8W J A	1
574	RB03	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
575	RB04	0130-6801-1850	RES. CF 6.8Kohm 1/8W J A	1
576	RB05	0130-5102-1850	RES. CF 51Kohm 1/8W J A	1
577	RB06	0130-2401-1450	RES. CF 2.4Kohm 1/4W J A	1
578	RB07	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
579	RB08	0130-1202-1450	RES. CF 12Kohm 1/4W J A	1
580	RB10	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
581	RB11	0130-4708-1450	RES. CF 4.7ohm 1/4W J A	1
582	RB12	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
583	RB14	0130-8201-1850	RES. CF 8.2Kohm 1/8W J A	1
584	RB15	0130-2201-1850	RES. CF 2.2Kohm 1/8W J A	1
585	RB16	0130-9101-1850	RES. CF 9.1Kohm 1/8W J A	1
586	RB17	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
587	RB18	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
588	RB19	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
589	RB20	0130-1501-1450	RES. CF 1.5Kohm 1/4W J A	1
590	RB21	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
591	RB22	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
592	RB23	0130-2202-1850	RES. CF 22Kohm 1/8W J A	1
593	RB24	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
594	RB25	0131-5620-1810	RES. MF 562ohm 1/8W F A	1
595	RB26	0131-2741-1810	RES. MF 2.74Kohm 1/8W F A	1
596	RB27	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
597	RB28	0131-1212-1410	RES. MF 12.1Kohm 1/4W F A	1
598	RB29	0131-6191-1410	RES. MF 6.19Kohm 1/4W F A	1
599	RB30	0132-1008-0252	RES. MOF 1ohm 2W J A-FK	1
600	RB31	0370-0000-1110	FERRITE CORE W8 R6H 6X10 2 1/2 T	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
601	RB32	0130-1508-1450	RES. CF 1.5ohm 1/4W J A	1
602	RB33	0131-1212-1410	RES. MF 12.1Kohm 1/4W F A	1
603	RB34	0131-6191-1810	RES. MF 6.19Kohm 1/8W F A	1
604	RB35	0132-1008-0252	RES. MOF 1ohm 2W J A-FK	1
605	RB36	0130-5100-1250	RES. CF 510ohm 1/2W J A	1
606	RB43	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
607	RB44	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
608	RB45	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
609	RB46	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
610	RB47	0130-1009-1450	RES. CF 10ohm 1/4W J A	1
611	RB51	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
612	RB52	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
613	RB54	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
614	RB62	0130-3309-1450	RES. CF 33ohm 1/4W J A	1
615	RB63	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
616	RC01	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
617	RC02	0130-2201-1450	RES. CF 2.2Kohm 1/4W J A	1
618	RC04	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
619	RC05	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
620	RC07	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
621	RC10	0130-1005-1850	RES. CF 10Mohm 1/8W J A	1
622	RC11	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
623	RC12	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
624	RC13	0130-2002-1450	RES. CF 20Kohm 1/4W J A	1
625	RC14	0130-2002-1450	RES. CF 20Kohm 1/4W J A	1
626	RC15	0130-2002-1850	RES. CF 20Kohm 1/8W J A	1
627	RC16	0130-2702-1450	RES. CF 27Kohm 1/4W J A	1
628	RC17	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
629	RC18	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
630	RC20	0130-2201-1850	RES. CF 2.2Kohm 1/8W J A	1
631	RC22	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
632	RC23	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
633	RC25	0130-2201-1450	RES. CF 2.2Kohm 1/4W J A	1
634	RC27	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
635	RC31	0130-2002-1450	RES. CF 20Kohm 1/4W J A	1
636	RC32	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
637	RC33	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
638	RC34	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
639	RC35	0130-2201-1850	RES. CF 2.2Kohm 1/8W J A	1
640	RC36	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
641	RC37	0130-2201-1850	RES. CF 2.2Kohm 1/8W J A	1
642	RC38	0130-2201-1450	RES. CF 2.2Kohm 1/4W J A	1
643	RC39	0130-4701-1450	RES. CF 4.7Kohm 1/4W J A	1
644	RC40	0130-2201-1850	RES. CF 2.2Kohm 1/8W J A	1
645	RC41	0130-2002-1850	RES. CF 20Kohm 1/8W J A	1
646	RC42	0130-4701-1450	RES. CF 4.7Kohm 1/4W J A	1
647	RC43	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
648	RC44	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
649	RC45	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
650	RC49	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
651	RC50	0130-2002-1450	RES. CF 20Kohm 1/4W J A	1
652	RC51	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
653	RC52	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
654	RC53	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
655	RC54	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
656	RC55	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
657	RC56	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
658	RC57	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
659	RC58	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
660	RC59	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
661	RC60	0130-2001-1850	RES. CF 2.0Kohm 1/8W J A	1
662	RC61	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
663	RC63	0130-2000-1850	RES. CF 200ohm 1/8W J A	1
664	RC65	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
665	RC67	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
666	RC70	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
667	RC73	0130-1002-1250	RES. CF 10Kohm 1/2W J A	1
668	RC74	0130-4701-1450	RES. CF 4.7Kohm 1/4W J A	1
669	RC75	0130-4701-1450	RES. CF 4.7Kohm 1/4W J A	1
670	RC76	0130-4701-1450	RES. CF 4.7Kohm 1/4W J A	1
671	RC77	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
672	RC78	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
673	RC79	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
674	RC80	0130-6809-1450	RES. CF 68ohm 1/4W J A	1
675	RC81	0130-6809-1450	RES. CF 68ohm 1/4W J A	1
676	RC82	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
677	RE01	0130-3302-1850	RES. CF 33Kohm 1/8W J A	1
678	RE02	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
679	RE07	0130-7509-1250	RES. CF 75ohm 1/2W J A	1
680	RE08	0130-5109-1450	RES. CF 51ohm 1/4W J A	1
681	RE10	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
682	RE13	0130-3302-1450	RES. CF 33Kohm 1/4W J A	1
683	RE14	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
684	RE15	0130-7509-1250	RES. CF 75ohm 1/2W J A	1
685	RE16	0130-5109-1450	RES. CF 51ohm 1/4W J A	1
686	RE17	0130-3302-1450	RES. CF 33Kohm 1/4W J A	1
687	RE18	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
688	RE19	0130-7509-1250	RES. CF 75ohm 1/2W J A	1
689	RE20	0130-5109-1450	RES. CF 51ohm 1/4W J A	1
690	RE21	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
691	RE22	0130-1601-1450	RES. CF 1.6Kohm 1/4W J A	1
692	RE24	0130-5109-1450	RES. CF 51ohm 1/4W J A	1
693	RE25	0130-7509-1250	RES. CF 75ohm 1/2W J A	1
694	RE26	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
695	RE29	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
696	RE30	0130-3302-1450	RES. CF 33Kohm 1/4W J A	1
697	RG01	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
698	RG02	0130-1008-1450	RES. CF 1.0ohm 1/4W J A	1
699	RG03	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
700	RG04	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
701	RG05	0130-3302-1850	RES. CF 33Kohm 1/8W J A	1
702	RG08	0130-2002-1450	RES. CF 20Kohm 1/4W J A	1
703	RG09	0130-2702-1850	RES. CF 27Kohm 1/8W J A	1
704	RG10	0130-5601-1850	RES. CF 5.6Kohm 1/8W J A	1
705	RG11	0130-1201-1850	RES. CF 1.2Kohm 1/8W J A	1
706	RG12	0130-4704-1850	RES. CF 4.7Mohm 1/8W J A	1
707	RG13	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
708	RG14	0130-7501-1850	RES. CF 7.5Kohm 1/8W J A	1
709	RG15	0130-3002-1850	RES. CF 30Kohm 1/8W J A	1
710	RG16	0130-2403-1850	RES. CF 240Kohm 1/8W J A	1
711	RG17	0130-3603-1850	RES. CF 360Kohm 1/8W J A	1
712	RG18	0130-4709-1450	RES. CF 47ohm 1/4W J A	1
713	RG20	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
714	RG21	0130-2200-1450	RES. CF 220ohm 1/4W J A	1
715	RG22	0132-2208-0252	RES. MOF 2.2ohm 2W J A-FK	1
716	RG23	0130-4709-1450	RES. CF 47ohm 1/4W J A	1
717	RG24	0130-2202-1850	RES. CF 22Kohm 1/8W J A	1
718	RG26	0130-2202-1850	RES. CF 22Kohm 1/8W J A	1
719	RG27	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
720	RG28	0130-1502-1850	RES. CF 15Kohm 1/8W J A	1
721	RG30	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
722	RG31	0130-4709-1450	RES. CF 47ohm 1/4W J A	1
723	RG32	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
724	RG33	0130-3301-1450	RES. CF 3.3Kohm 1/4W J A	1
725	RG34	0130-1003-1450	RES. CF 100Kohm 1/4W J A	1
726	RG35	0132-1203-0252	RES. MOF 120Kohm 2W J A-FK	1
727	RG37	0130-5601-1850	RES. CF 5.6Kohm 1/8W J A	1
728	RG38	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
729	RG39	0130-1201-1850	RES. CF 1.2Kohm 1/8W J A	1
730	RG40	0130-1003-1850	RES. CF 100Kohm 1/8W J A	1
731	RG41	0130-1003-1850	RES. CF 100Kohm 1/8W J A	1
732	RG42	0130-1001-1250	RES. CF 1.0Kohm 1/2W J A	1
733	RG43	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
734	RG44	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
735	RG45	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
736	RG46	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
737	RG47	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
738	RG49	0130-9103-1450	RES. CF 910Kohm 1/4W J A	1
739	RG50	0130-3601-1850	RES. CF 3.6Kohm 1/8W J A	1
740	RG51	0130-2003-1250	RES. CF 200Kohm 1/2W J A	1
741	RG52	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
742	RG53	0130-1801-1850	RES. CF 1.8Kohm 1/8W J A	1
743	RG54	0130-4709-1850	RES. CF 47ohm 1/8W J A	1
744	RG55	0130-2002-1450	RES. CF 20Kohm 1/4W J A	1
745	RG56	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
746	RG57	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
747	RG58	0130-2409-1450	RES. CF 24ohm 1/4W J A	1
748	RG59	0130-2002-1450	RES. CF 20Kohm 1/4W J A	1
749	RG60	0130-8200-1850	RES. CF 820ohm 1/8W J A	1
750	RG61	0130-8201-1850	RES. CF 8.2Kohm 1/8W J A	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
751	RG62	0132-1009-0152	RES. MOF 10ohm 1W J A-FK	1
752	RG63	0130-6803-1850	RES. CF 680Kohm 1/8W J A	1
753	RG65	0130-5100-1850	RES. CF 510ohm 1/8W J A	1
754	RG66	0130-1003-1850	RES. CF 100Kohm 1/8W J A	1
755	RG67	0130-3901-1850	RES. CF 3.9Kohm 1/8W J A	1
756	RG68	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
757	RG69	0130-2700-1850	RES. CF 270ohm 1/8W J A	1
758	RG70	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
759	RG72	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
760	RG73	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
761	RG74	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
762	RG75	0130-5100-1850	RES. CF 510ohm 1/8W J A	1
763	RH01	0130-1202-1850	RES. CF 12Kohm 1/8W J A	1
764	RH02	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
765	RH03	0131-5621-1810	RES. MF 5.62Kohm 1/8W F A	1
766	RH04	0130-6801-1850	RES. CF 6.8Kohm 1/8W J A	1
767	RH05	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
768	RH06	0130-1003-1850	RES. CF 100Kohm 1/8W J A	1
769	RH07	0130-8201-1450	RES. CF 8.2Kohm 1/4W J A	1
770	RH09	0130-1000-1450	RES. CF 100ohm 1/4W J A	1
771	RH10	0130-1003-1850	RES. CF 100Kohm 1/8W J A	1
772	RH11	0130-1803-1450	RES. CF 180Kohm 1/4W J A	1
773	RH12	0130-1503-1850	RES. CF 150Kohm 1/8W J A	1
774	RH14	0130-7501-1850	RES. CF 7.5Kohm 1/8W J A	1
775	RH15	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
776	RH16	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
777	RH17	0130-3900-1250	RES. CF 390ohm 1/2W J A	1
778	RH18	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
779	RH20	0130-3302-1850	RES. CF 33Kohm 1/8W J A	1
780	RH21	0130-2200-1850	RES. CF 220ohm 1/8W J A	1
781	RH22	0130-8202-1850	RES. CF 82Kohm 1/8W J A	1
782	RH23	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
783	RH24	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
784	RH25	0230-5008-0000	JUMPER WIRE 5.0*0.6MM	1
785	RH26	0130-4701-1450	RES. CF 4.7Kohm 1/4W J A	1
786	RH27	0130-2203-1850	RES. CF 220Kohm 1/8W J A	1
787	RH28	0132-4702-0252	RES. MOF 47Kohm 2W J A-FK	1
788	RH30	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
789	RH31	0130-1009-1450	RES. CF 10ohm 1/4W J A	1
790	RH32	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
791	RH33	0130-2209-1450	RES. CF 22ohm 1/4W J A	1
792	RH34	0132-1208-0252	RES. MOF 1.2ohm 2W J A-FK	1
793	RH36	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
794	RH40	0135-3308-0551	RES. CEMENT 3.3 ohm 5W J SQM	1
795	RH41	0135-1008-0551	RES. CEMENT 1ohm 5W J SQM	1
796	RH42	0133-0188-0251	RES. MOF(M) 0.18ohm 2W J A-F	1
797	RH43	0132-2200-0152	RES. MOF 220ohm 1W J A-FK	1
798	RH44	0130-1009-1450	RES. CF 10ohm 1/4W J A	1
799	RH45	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
800	RH46	0132-1509-0254	RES. MOF 15ohm 2W J R-K	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
801	RH47	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
802	RH50	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
803	RH51	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
804	RH52	0132-1808-0252	RES. MOF 1.8ohm 2W J A-FK	1
805	RH53	0130-4700-1250	RES. CF 470ohm 1/2W J A	1
806	RH55	0132-4709-0251	RES. MOF 47ohm 2W J A-F	1
807	RH59	0132-3308-0252	RES. MOF 3.3ohm 2W J A-FK	1
808	RH60	0132-1808-0252	RES. MOF 1.8ohm 2W J A-FK	1
809	RH61	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
810	RH62	0130-2001-1850	RES. CF 2.0Kohm 1/8W J A	1
811	RH63	0130-3309-1450	RES. CF 33ohm 1/4W J A	1
812	RH64	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
813	RH65	0130-2202-1450	RES. CF 22Kohm 1/4W J A	1
814	RH66	0130-2202-1450	RES. CF 22Kohm 1/4W J A	1
815	RH67	0130-2202-1450	RES. CF 22Kohm 1/4W J A	1
816	RH68	0130-2202-1450	RES. CF 22Kohm 1/4W J A	1
817	RH69	0132-5609-0154	RES. MOF 56ohm 1W J R-K	1
818	RH70	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
819	RH71	0130-4709-1850	RES. CF 47ohm 1/8W J A	1
820	RH72	0130-4702-1850	RES. CF 47Kohm 1/8W J A	1
821	RH73	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
822	RH74	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
823	RH75	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
824	RH76	0131-3012-1410	RES. MF 30.1Kohm 1/4W F A	1
825	RH77	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
826	RH78	0130-3301-1850	RES. CF 3.3Kohm 1/8W J A	1
827	RH79	0130-1001-1450	RES. CF 1.0Kohm 1/4W J A	1
828	RH80	0130-1002-1850	RES. CF 10Kohm 1/8W J A	1
829	RH81	0130-2202-1450	RES. CF 22Kohm 1/4W J A	1
830	RH82	0130-2403-1450	RES. CF 240Kohm 1/4W J A	1
831	RLA01	0252-1250-2012	RELAY 2POLES 250V/5A/12VDC ST	1
832	RLH01	0251-1212-0017	RELAY 1POLES 240V/15A/12VDC/320	1
833	RX01	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
834	RX02	0130-1000-1850	RES. CF 100ohm 1/8W J A	1
835	RX03	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
836	RX04	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
837	RX05	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
838	RX06	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
839	RX07	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
840	RX08	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
841	RX09	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
842	RX10	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
843	RX11	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
844	RX12	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
845	RX13	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
846	RX14	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
847	RX15	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
848	RX16	0130-4700-1850	RES. CF 470ohm 1/8W J A	1
849	RX17	0130-2709-1450	RES. CF 27ohm 1/4W J A	1
850	RX18	0130-2709-1450	RES. CF 27ohm 1/4W J A	1

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ITEM	LOC	PART NO	DESCRPTION	QTY
851	SWA01B	1712-0100-0470	AC BRACKET AT1099DA	1
852	TA01	0352-0200-0010	LINE FILTER BF-28 15MH-15MH	1
853	TA02	0350-0419-0030	X'FMR EEL19 5.5MH AT1099DA	1
854	TA03	0350-0242-0090	X'FMR EE4215 105uH (21"&22")	1
855	TA04	0353-0600-0010	X'FMR SYNC UU10.5 1.75-1.75MH	1
856	TG01	0480-0000-0100	F.B.T. 26.5KV 3000PF (CF1043E)	1
857	TG02	0351-0125-0020	X'FMR EI25 24:240 TS	1
858	THA02	0161-8092-0030	POSISTOR 8ohm 20A 2P	1
859	THA03	0160-5091-0020	NTCR SCK-0510 5ohm 10A F7.5	1
860	TH02	0351-0213-0010	X'FMR EE13 35MH 250:1	1
861	TH03	0351-0122-0020	X'FMR DRIVE EI22 3.8mH-65uH	1
862	VRG01	0151-1033-1002	SVR M/STAND/B 10Kohm B 6	1
863	VRH01	0151-1021-1001	SVR M/LAYER/B 1Kohm B 6	1
864	VRH02	0151-2023-1001	SVR M/STAND/B 2Kohm B 6	1
865	WA01	0262-0000-0012	AC SOCKET 0714C PCB TYPE	1
866	WA01W	0460-1701-0041	WH SRA4.3@ 60MM 1015#18 G/Y	1
867	WA02	0451-1000-0294	WAFER 10MM 2P/WHITE	1
868	WA03	0451-3963-0154	WAFER 3.96MM 3P-1 180'	1
869	WA06	0460-1102-0020	WH XH2P-SCN2P 1185#26 280MM	1
870	WA08	0451-2500-1502	WAFER 2.50mm 15P 180' KINK	1
871	WA08PB	3021-0042-0157	ASS'Y POWER FACTOR BD GS815-2	1
872	WB01	0460-1112-0031	WH XH12P-SCN12P 1007#24 160MM + CORE	1
873	WC01	0451-2500-0414	WAFER 2.50MM 4P 180' KINK	1
874	WC08	0460-1109-0040	WH XH9P-SCN7P/2P 1007#24 150/170mm	1
875	WE04	0451-2500-0314	WAFER 2.50MM 3P 180' KINK	1
876	WE05	0460-1106-0100	WH XH6P-SCN2P*3 1007#24 310mm	1
877	WG01	0459-2540-0277	PIN HEADER 2.54MM2P 180'11.6MM	1
878	WH02	0451-3963-0154	WAFER 3.96MM 3P-1 180'	1
879	WH03	0451-3960-0654	WAFER 3.96MM 6P 180'	1
880	WX01	0451-2500-0214	WAFER 2.50MM 2P 180' KINK	1
881	WX02	0451-2500-0214	WAFER 2.50MM 2P 180' KINK	1
882	WX03	0451-2500-0214	WAFER 2.50MM 2P 180' KINK	1
883	WX04	0451-2500-0214	WAFER 2.50MM 2P 180' KINK	1
884	XTAC01	0280-1000-0015	X'TAL 10MHZ 49/U 30PPM 30PF 1MW	1
885	ZDA02	0400-1751-2000	ZENER 18-2 17.5-18.3V 1/2W	1
886	ZDA03	0400-1751-2000	ZENER 18-2 17.5-18.3V 1/2W	1
887	ZDA04	0400-0891-2000	ZENER 9C1 8.9-9.3V 1/2W	1
888	ZDB01	0400-3421-2000	ZENER 36-1 34.2-35.7V 1/2W	1
889	ZDC02	0400-0581-2000	ZENER 6C1 5.8-6.1V 1/2W	1
890	ZDC03	0400-0581-2000	ZENER 6C1 5.8-6.1V 1/2W	1
891	ZDG01	0400-0381-2000	ZENER 4B2 3.8-4.0V 1/2W	1
892	ZDH01	0400-1261-2000	ZENER 12B2 12.6-13.1V 1/2W	1
893	ZDH04	0400-1261-2000	ZENER 12B2 12.6-13.1V 1/2W	1

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11.8. 3019-0782-0306 BEZEL ASS'Y P95f

ITEM	LOC	PART NO	DESCRPTION	QTY
1		0220-2020-0261	SW PUSH BOTTOM SFDLD11E7U-AA	1
2		0242-0425-1504	HEAT S-T 4.0*0.25 15MM 125'	2
3		0460-1203-0120	WH VHR3P UL2464#18*2C+AE 540mm	1
4		1701-0103-2050	BEZEL P95f G7397 PC+ABS	1
5		1701-0402-1001	FUNCTION KNOB G7397 PF775	1
6		1701-0402-2000	POWER KNOB G7397 PF775	1
7		1712-0700-0600	SPRING/PT771/P795	1
8		1724-2603-0802	SCREW,BTCW,M3.0X8L,ZZ-CC	6
9		3019-0072-0156	ASS'Y DISPLAY BD PF97	1

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11.9. 3019-0022-0159 ASS'Y DIODE OPTION BD FOR DA17

ITEM	LOC	PART NO	DESCRPTION	QTY
1	D01	0390-3004-8022	FAST DIODE FUF5408 T	1
2	D02	0390-3004-8022	FAST DIODE FUF5408 T	1
3	PCB8	0171-1641-0070	PCB OPTION BD FR4 30x60mmx1.0T D	1
4	R01	0133-0228-0252	RES. MOF(M) 0.22ohm 2W J A-FK	1
5	R02	0133-0228-0252	RES. MOF(M) 0.22ohm 2W J A-FK	1

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11.10.3019-0072-0156 ASS'Y DISPLAY BD PF97

ITEM	LOC	PART NO	DESCRPTION	QTY
1	LEDD01	0440-5000-0020	LED L-59GYW 5	1
2	LED01N	1701-1500-0100	LED HOLDER 3PIN/LED 4X3A	1
3	PCB5	0170-1740-0120	PCB DISPLAY BD V0 118X36X1.6T PT775	1
4	RD01	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
5	RD02	0130-3309-1850	RES. CF 33ohm 1/8W J A	1
6	RD03	0131-4751-1410	RES. MF 4.75Kohm 1/4W F A	1
7	RD04	0130-1802-1450	RES. CF 18Kohm 1/4W J A	1
8	RD05	0130-1102-1850	RES. CF 11Kohm 1/8W J A	1
9	RD06	0130-7501-1850	RES. CF 7.5Kohm 1/8W J A	1
10	SWD01	0220-7020-0167	SW TACTILE 6*6MM 4P	1
11	SWD02	0220-7020-0167	SW TACTILE 6*6MM 4P	1
12	SWD03	0220-7020-0167	SW TACTILE 6*6MM 4P	1
13	SWD04	0220-7020-0167	SW TACTILE 6*6MM 4P	1
14	WD01	0460-1104-0040	WH XH4P-SCN4P 1007#24 230MM	1

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11.11.3021-0042-0157 ASS'Y POWER FACTOR BD GS815-2

ITEM	LOC	PART NO	DESCRPTION	QTY
1		0174-2040-0080	PCB POWER FACTOR BD K1 107x65mmx1.6	1
2	CP01	0120-5105-4031	P/C MEF 1.0UF 400V J F-K	1
3	CP02	0120-5224-0531	P/C MEF 0.22UF 50V J F-K (T)	1
4	CP03	0111-2151-5102	C/C DISK 150PF 50V NPO F-K	1
5	CP04	0111-1102-5112	C/C DISK 1000PF 50V Y5P F-K	1
6	CP05	0101-1220-1211	E/C GEN. 22UF 16V 105' F	1
7	CP07	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
8	CP09	0111-1104-5102	C/C DISK 0.1UF 50V Y5V F-K	1
9	CP10	0120-9224-6331	P/C MPS 0.22UF 630V J F-K	1
10	CP11	0111-1103-5122	C/C DISK 0.01UF 50V Z5U F-K	1
11	CP12	0111-2330-5102	C/C DISK 33PF 50V NPO F-K	1
12	DP01	0390-5001-0202	GEN. DIODE 1N5406 T/B	1
13	DP02	0390-5001-0202	GEN. DIODE 1N5406 T/B	1
14	DP03	0390-5001-0202	GEN. DIODE 1N5406 T/B	1
15	DP04	0390-5001-0202	GEN. DIODE 1N5406 T/B	1
16	DP05	3019-0042-0159	ASS'Y DIODE OPTION BD FOR DP05(PFC)	1
17	DP06	0390-5001-0202	GEN. DIODE 1N5406 T/B	1
18	DP07	0390-5000-1052	GEN. DIODE 1N4148 T	1
19	DP08	0390-5000-1052	GEN. DIODE 1N4148 T	1
20	ICP01	0430-7005-5110	IC MC33260 DIP 8PIN	1
21	JP01	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
22	JP02	0230-1509-0000	JUMPER WIRE 15*0.6MM	1
23	LP01	0370-0000-1010	FERRITE CORE RH 3.5X6X1.0(W)X2	1
24	P02	0460-1701-0530	WH 1007#24 60mm	1
25	QP01	0420-1001-0401	POWER MOS IRFBC40 TO-220	1
26	QP01H	1712-0400-0270	HEAT SINK (23.5WX16.5TX50H)	1
27	QP01R	1701-1100-0801	SILICON RUBBER /TO1633(30)	1
28	QP01S	1724-1703-1202	SCREW,PB,M3.0X12L,ZN-CC	1
29	QP01W	1701-0600-0200	TRANSISTOR COVER / TR-08	1
30	QP02	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
31	QP03	0410-2000-1110	TRANSISTOR 2SC945P TO-92 T	1
32	QP04	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
33	QP05	0410-0000-1109	TRANSISTOR 2SA733P TO-92 T	1
34	RP01	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
35	RP02	0137-0688-0352	RES. W.W.(non ind.) 0.68ohm 3W J A-FK	1
36	RP03	0137-0688-0352	RES. W.W.(non ind.) 0.68ohm 3W J A-FK	1
37	RP04	0130-1004-1254	RES. CF 1.0Mohm 1/2W J R-K	1
38	RP05	0130-1004-1254	RES. CF 1.0Mohm 1/2W J R-K	1
39	RP06	0130-1001-1850	RES. CF 1.0Kohm 1/8W J A	1
40	RP07	0130-4701-1850	RES. CF 4.7Kohm 1/8W J A	1
41	RP08	0130-9101-1250	RES. CF 9.1Kohm 1/2W J A	1
42	RP09	0130-1201-1850	RES. CF 1.2Kohm 1/8W J A	1
43	RP10	0130-1002-1450	RES. CF 10Kohm 1/4W J A	1
44	RP11	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
45	RP12	0130-1009-1850	RES. CF 10ohm 1/8W J A	1
46	RP15	0130-6209-1254	RES. CF 62ohm 1/2W J R-K	1
47	TP01	0350-0130-0062	X'FMR EI30 125Uh	1
48	WP01	0451-2500-1532	WAFER 2.50mm 15P 90' KINK	1
49	ZDP01	0400-1451-2000	ZENER 15-2 14.5-15.1V 1/2W	1
50	ZDP02	0400-0891-2000	ZENER 9C1 8.9-9.3V 1/2W	1
51	ZDP03	0400-0371-2000	ZENER 4B1 3.7-3.9V 1/2W	1

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11.12.3019-0042-0159 ASS'Y DIODE OPTION BD FOR DP05(PFC)

ITEM	LOC	PART NO	DESCRPTION	QTY
1		0171-1641-0090	PCB DIODE(PFC) BD FR4 26x40mmx1.0t	1
2	DPX01	0390-4000-2272	FAST DIODE ER506 T (600V 5A)	1

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Chapter 12. Schematic Diagrams

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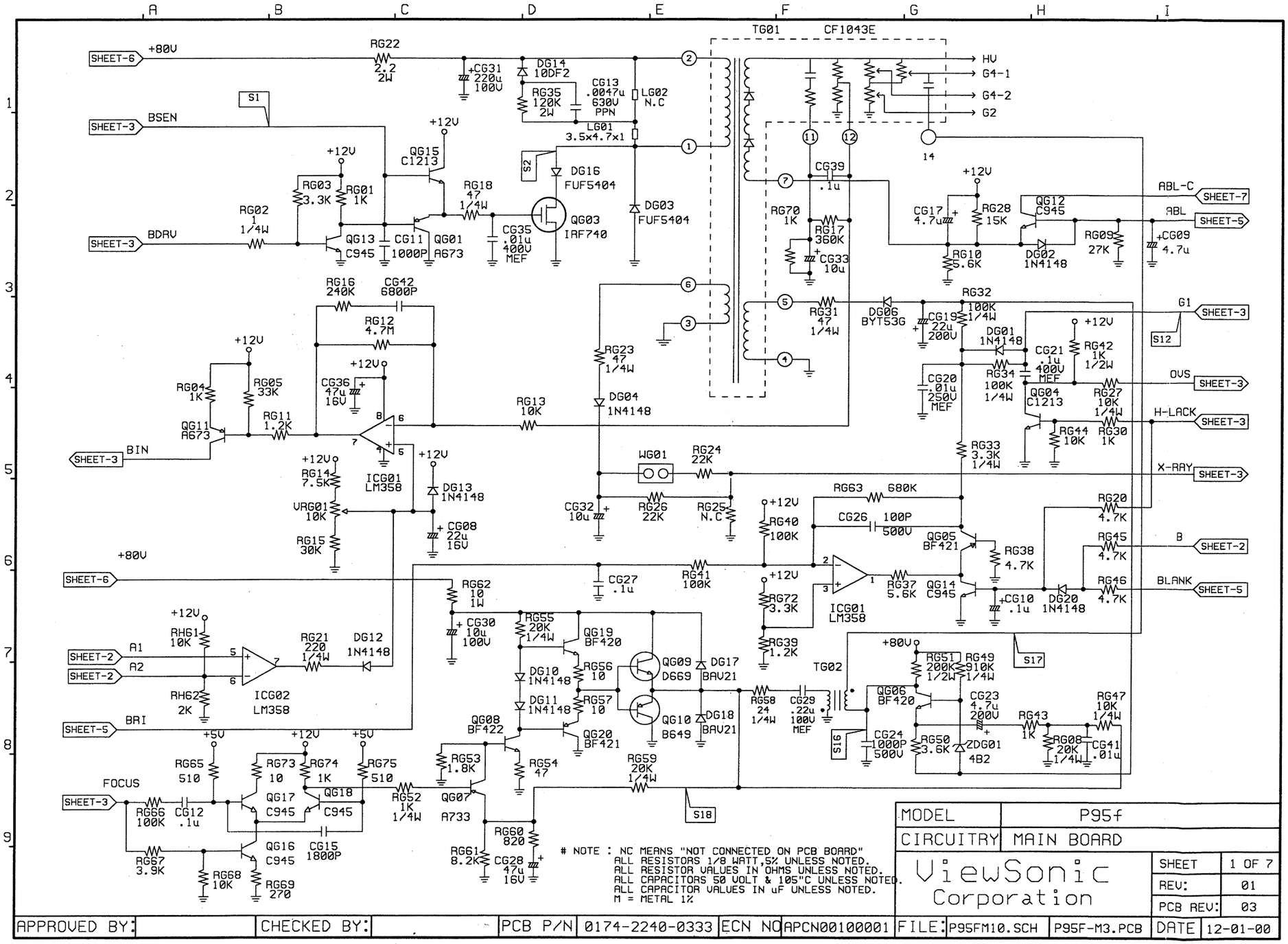

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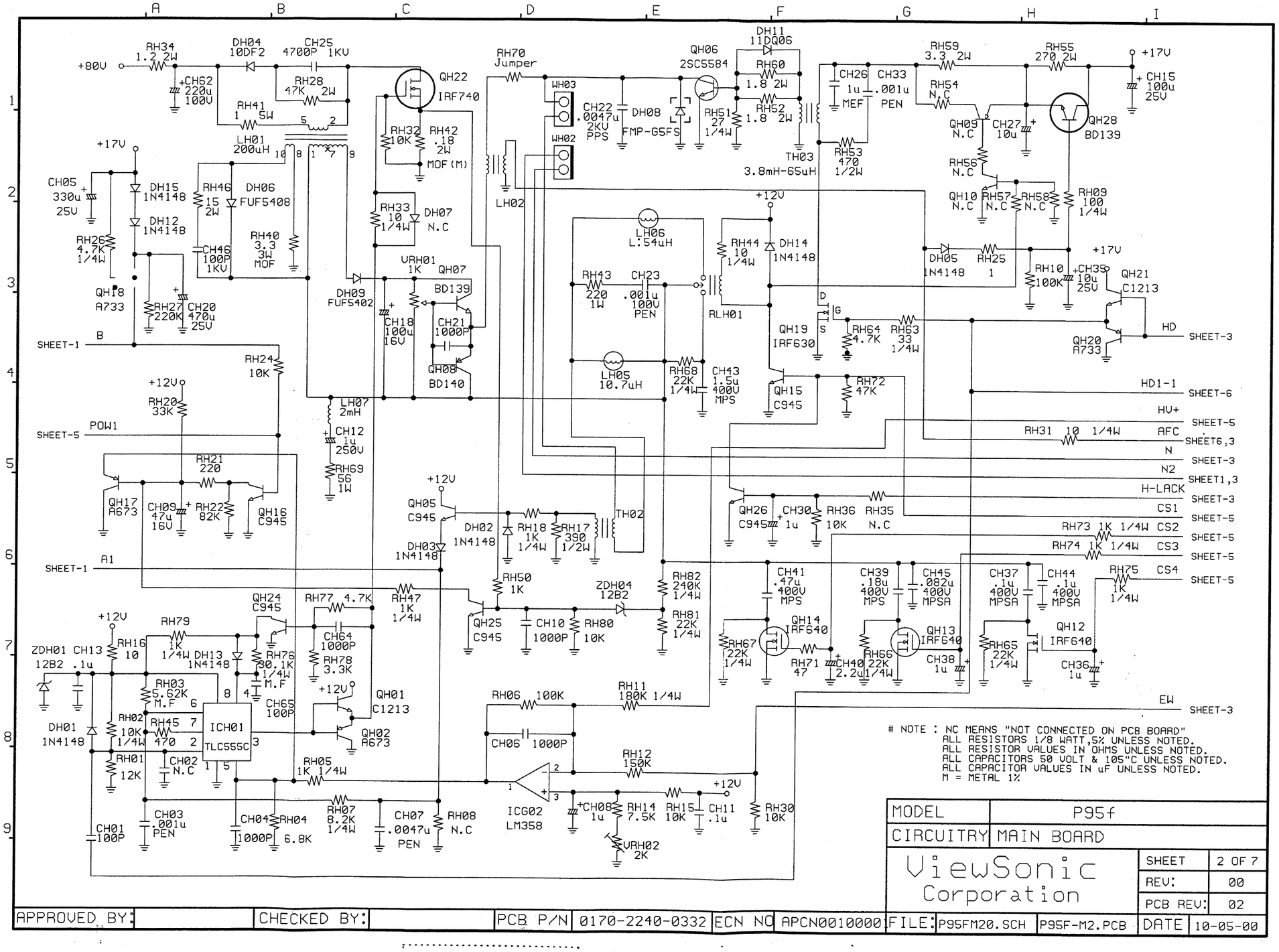
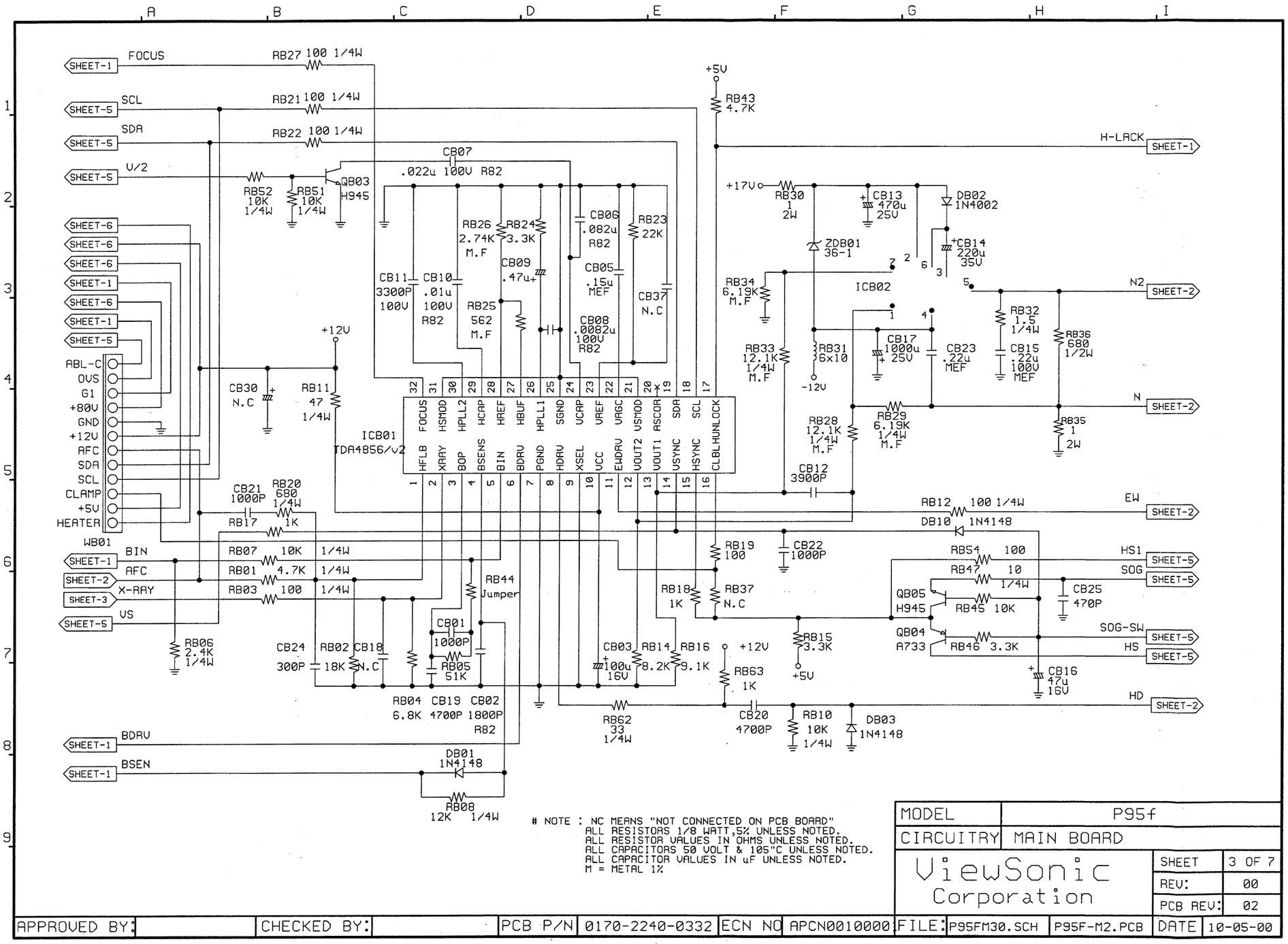
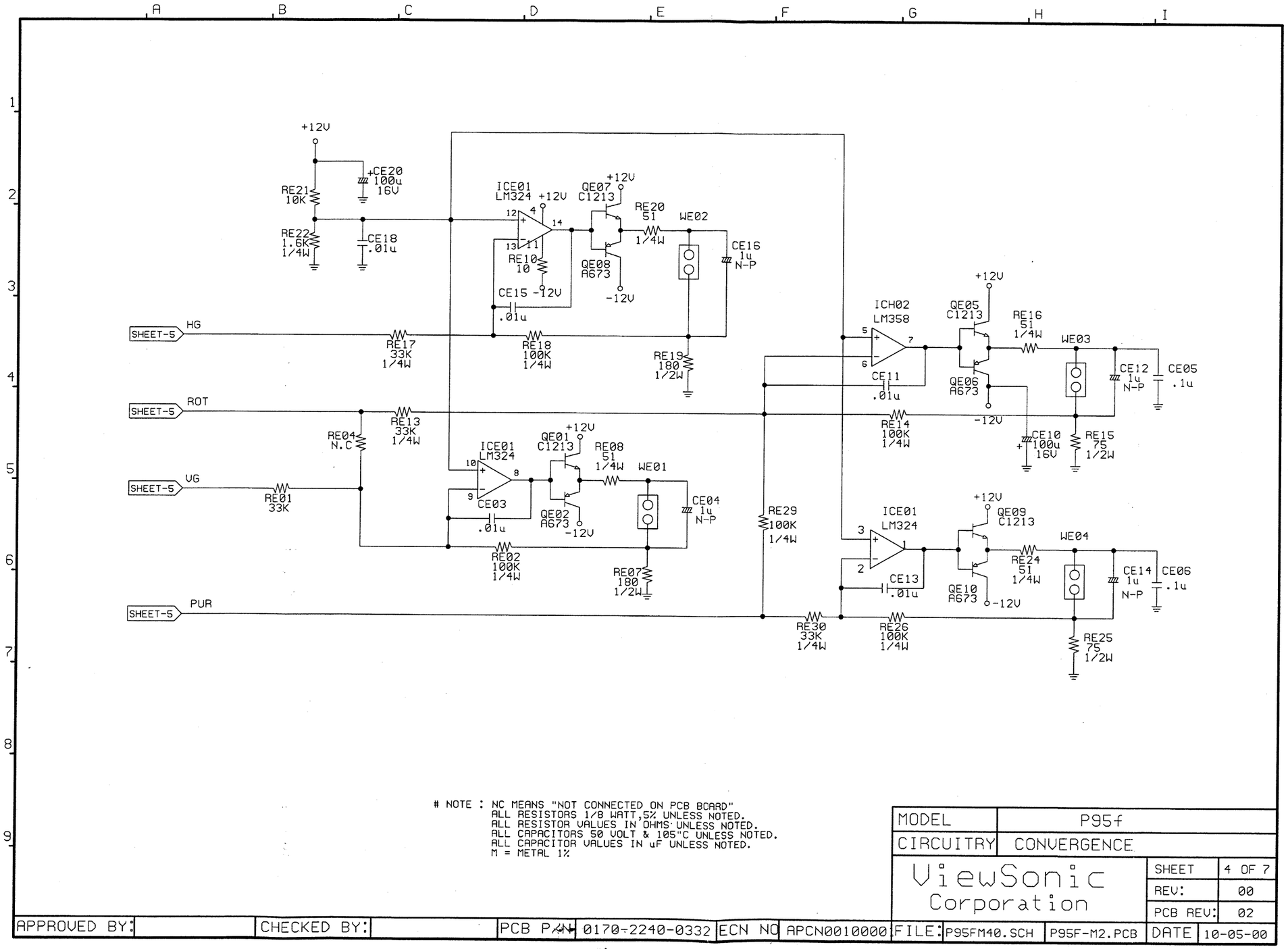

+80V
RH34 1.2 2W
DH04 10DF2
CH25 4700P 1KV
+CH62 220u 100V
RH28 47K 2W
RH41 1 5W
QH22 IRF740
RH70 Jumper
WH03
WH02
LH02
CH22 .0047u 2KV PPS
DH08 FMP-G5FS
QH06 2SC5584
DH11 11DQ06
RH60 1.8 2W
RH52 1.8 2W
RH51 27 1/4W
TH03 3.8mH-65uH
CH26 1u MEF
CH33 .001u PEN
RH53 470 1/2W
RH59 3.3 2W
RH54 N.C
RH55 270 2W
+17V
+ CH15 100u 25V
QH09 N.C
CH27 10u
QH28 BD139
RH56 N.C
QH10 N.C
RH57 N.C
RH58 N.C
RH09 100 1/4W
LH01 200uH
RH32 10K
RH42 .18 2W MOF(M)
RH33 10 1/4W
DH07 N.C
VRH01 1K
QH07 BD139
CH18 100u 16V
CH21 1000P
QH08 BD140
DH09 FUF5402
CH05 330u 25V
DH15 1N4148
DH12 1N4148
RH26 4.7K 1/4W
QH18 A733
RH27 220K
CH20 470u 25V
RH46 15 2W
DH06 FUF5408
CH46 100P 1KV
RH40 3.3 3W MOF
LH06 L:54uH
RH43 220 1W
CH23 .001u 100V PEN
RLH01
RH44 10 1/4W
DH14 1N4148
+12V
LH05 10.7uH
RH68 22K 1/4W
CH43 1.5u 400V MPS
QH15 C945
QH19 IRF630
RH64 4.7K
RH63 33 1/4W
RH72 47K
DH05 1N4148
RH25 1
RH10 100K
+CH35 10u 25V
QH21 C1213
QH20 A733
HD
SHEET-3
HD1-1
SHEET-6
HV+
SHEET-5
RH31 10 1/4W AFC
SHEET6,3
N
SHEET-3
N2
SHEET1,3
H-LACK
SHEET-3
CS1
SHEET-5
RH73 1K 1/4W CS2
SHEET-5
RH74 1K 1/4W CS3
SHEET-5
RH75 1K 1/4W CS4
SHEET-5
EW
SHEET-3
SHEET-1
B
RH24 10K
+12V
RH20 33K
SHEET-5
POW1
LH07 2mH
+ CH12 1u 250V
RH69 56 1W
RH21 220
QH17 A673
CH09 47u 16V
RH22 82K
QH16 C945
+12V
QH05 C945
DH02 1N4148
DH03 1N4148
RH18 1K 1/4W
RH17 390 1/2W
TH02
SHEET-1
A1
RH50 1K
ZDH04 12B2
RH82 240K 1/4W
RH81 22K 1/4W
QH24 C945
RH77 4.7K
RH47 1K 1/4W
QH25 C945
CH10 1000P
RH80 10K
CH64 1000P
RH78 3.3K
CH41 .47u 400V MPS
CH39 .18u 400V MPS
CH45 .082u 400V MPSA
CH37 .1u 400V MPSA
CH44 .1u 400V MPSA
QH14 IRF640
QH13 IRF640
QH12 IRF640
RH67 22K 1/4W
RH71 47
CH40 2.2u
RH66 22K 1/4W
CH38 1u
RH65 22K 1/4W
CH36 1u
+12V
RH79 1K 1/4W
DH13 1N4148
RH76 80.1K 1/4W M.F
ZDH01 12B2
CH13 .1u
RH16 10
RH03 5.62K M.F
RH02 10K 1/4W
RH01 12K
DH01 1N4148
CH02 N.C
ICH01 TLC555C
CH65 100P
+12V
QH01 C1213
QH02 A673
RH06 100K
RH11 180K 1/4W
CH06 1000P
RH12 150K
RH05 1K 1/4W
RH07 8.2K 1/4W
CH07 .0047u PEN
RH08 N.C
CH03 .001u PEN
CH04 1000P
RH04 6.8K
CH01 100P
ICG02 LM358
+CH08 1u
RH14 7.5K
RH15 10K
CH11 .1u
VRH02 2K
RH30 10K
+12V
NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%
MODEL P95f
CIRCUITRY MAIN BOARD
ViewSonic Corporation
SHEET 2 OF 7
REV: 00
PCB REV: 02
APPROVED BY:
CHECKED BY:
PCB P/N 0170-2240-0332
ECN NO APCN00010000
FILE: P95FM20.SCH P95F-M2.PCB
DATE 10-05-00



NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

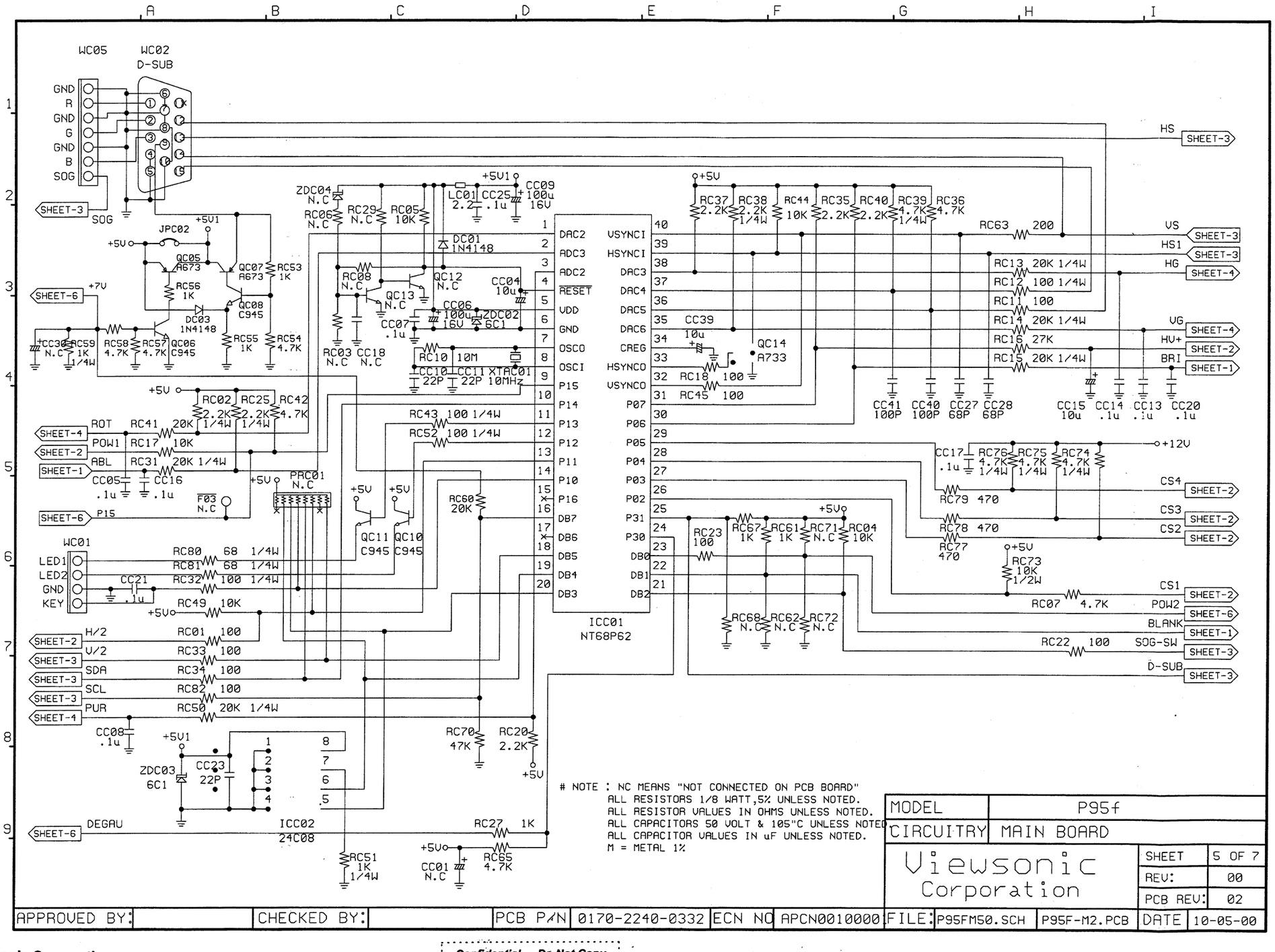
APPROVED BY:		CHECKED BY:		PCB P/N	0170-2240-0332	ECN NO	APCN0010000	FILE:	P95FM30.SCH	P95F-M2.PCB	DATE 10-05-00

MODEL	P95f
CIRCUITRY	MAIN BOARD
ViewSonic Corporation	SHEET 3 OF 7
	REV: 00
	PCB REV: 02



NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

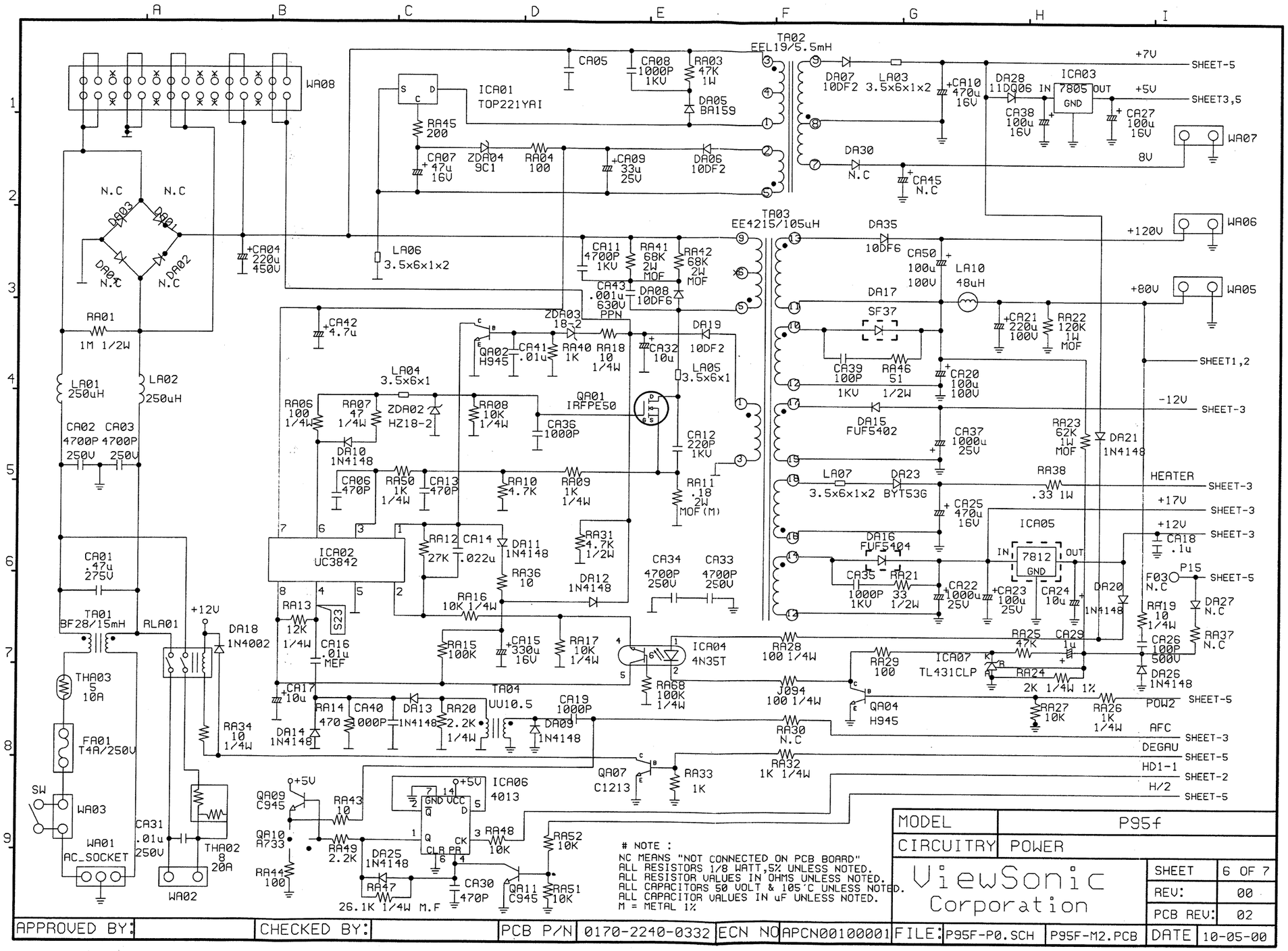
MODEL	P95f										
CIRCUITRY	CONVERGENCE										
ViewSonic Corporation								SHEET	4 OF 7		
								REV:	00		
								PCB REV:	02		
APPROVED BY:		CHECKED BY:		PCB P/N	0170-2240-0332	ECN NO	APCN0010000	FILE:	P95FM40.SCH	P95F-M2.PCB	DATE 10-05-00

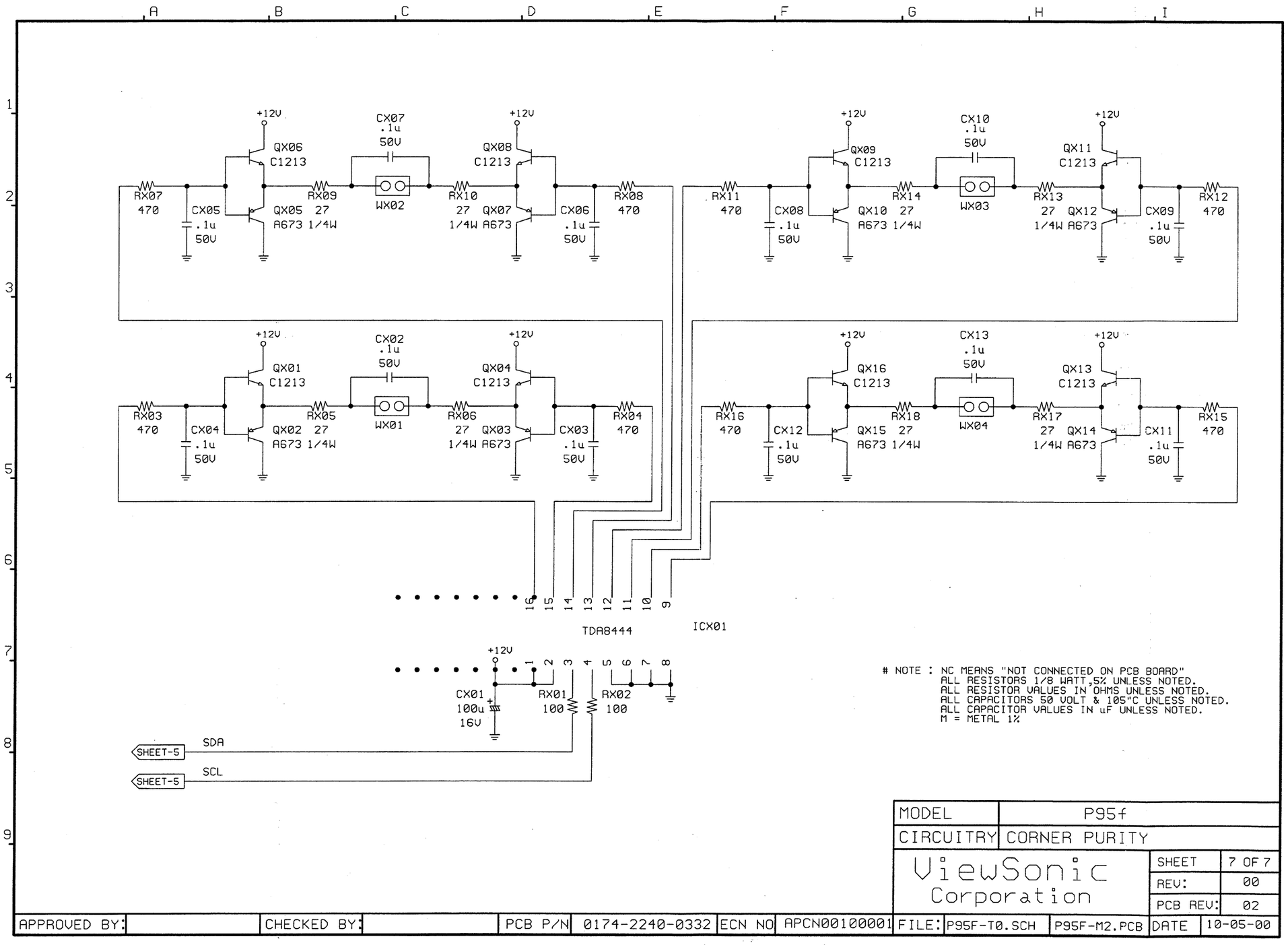


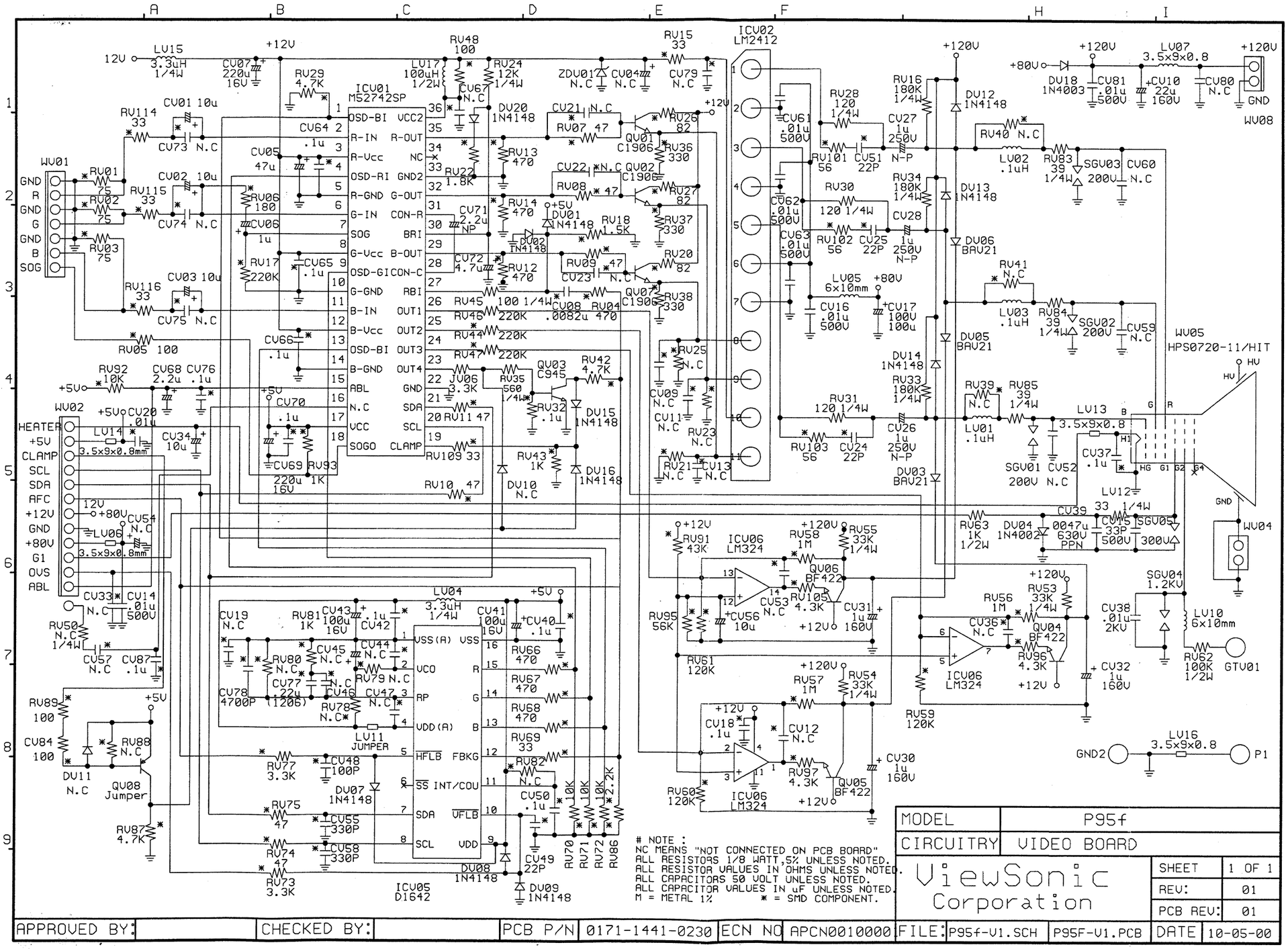
NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

APPROVED BY:		CHECKED BY:		PCB P/N	0170-2240-0332	ECN NO	APCN00100001	FILE:	P95FM50.SCH	P95F-M2.PCB	DATE 10-05-00

MODEL	P95f
CIRCUITRY	MAIN BOARD
ViewSonic Corporation	SHEET 5 OF 7
	REV: 00
	PCB REV: 02


TA02 EEL19/5.5mH
WA08
ICA01 TOP221YAI
CA05
CA08 1000P 1KV
RA03 47K 1W
DA05 BA159
RA45 200
CA07 47u 16V
ZDA04 9C1
RA04 100
CA09 33u 25V
DA06 10DF2
DA07 10DF2
LA03 3.5x6x1x2
CA10 470u 16V
DA28 11DQ06
ICA03 7805
GND IN OUT
+7V
+5V
SHEET-5
SHEET3,5
CA38 100u 16V
CA27 100u 16V
WA07
8V
DA30
N.C
CA45 N.C
TA03 EE4215/105uH
DA35 10DF6
+120V
WA06
CA50 100u 100V
LA10 48uH
DA17
+80V
WA05
SF37
CA21 220u 100V
RA22 120K 1W MOF
SHEET1,2
CA39 100P 1KV
RA46 51 1/2W
CA20 100u 100V
-12V
SHEET-3
DA15 FUF5402
CA37 1000u 25V
RA23 62K 1W MOF
DA21 1N4148
LA07 3.5x6x1x2
DA23 BYT53G
RA38 .33 1W
HEATER
SHEET-3
CA25 470u 16V
+17V
SHEET-3
ICA05
DA16 FUF5404
CA35 1000P 1KV
RA21 33 1/2W
CA22 1000u 25V
CA23 100u 25V
7812 GND IN OUT
CA24 10u
DA20 1N4148
+12V
SHEET-3
CA18 .1u
P15
F03 N.C
SHEET-5
DA27 N.C
RA19 10 1/4W
CA26 100P 500V
RA37 N.C
DA26 1N4148
RA25 47K
CA29 1u
RA24 2K 1/4W 1%
RA27 10K
RA26 1K 1/4W
POW2
SHEET-5
AFC
SHEET-3
DEGAU
SHEET-5
HD1-1
SHEET-2
H/2
SHEET-5
N.C N.C
DA03 DA01 DA04 DA02
N.C N.C
+CA04 220u 450V
LA06 3.5x6x1x2
CA11 4700P 1KV
RA41 68K 2W MOF
RA42 68K 2W MOF
CA43 .001u 630V PPN
DA08 10DF6
RA01 1M 1/2W
LA01 250uH
LA02 250uH
CA02 4700P 250V
CA03 4700P 250V
CA42 4.7u
ZDA03 18-2
QA02 H945
CA41 .01u
RA40 1K
RA18 10 1/4W
CA32 10u
DA19 10DF2
LA04 3.5x6x1
LA05 3.5x6x1
RA06 100 1/4W
RA07 47 1/4W
ZDA02 HZ18-2
RA08 10K 1/4W
QA01 IRFPE50
CA36 1000P
CA12 220P 1KV
DA10 1N4148
CA06 470P
RA50 1K 1/4W
CA13 470P
RA10 4.7K
RA09 1K 1/4W
RA11 .18 2W MOF(M)
RA31 4.7K 1/2W
ICA02 UC3842
RA12 27K
CA14 .022u
DA11 1N4148
RA36 10
DA12 1N4148
CA34 4700P 250V
CA33 4700P 250V
RA16 10K 1/4W
CA01 .47u 275V
TA01 BF28/15mH
RLA01
+12V
DA18 1N4002
RA13 12K 1/4W
CA16 .01u MEF
S23
RA15 100K
+CA15 330u 16V
RA17 10K 1/4W
ICA04 4N35T
RA28 100 1/4W
RA29 100
ICA07 TL431CLP
RA68 100K 1/4W
J094
100 1/4W
QA04 H945
THA03 5 10A
FA01 T4A/250V
SW
WA03
WA01 AC_SOCKET
WA02
CA31 .01u 250V
THA02 8 20A
RA34 10 1/4W
+CA17 10u
RA14 470
CA40 000P
DA13 1N4148
RA20 2.2K 1/4W
UU10.5
CA19 1000P
DA09 1N4148
DA14 1N4148
RA30 N.C
RA32 1K 1/4W
QA07 C1213
RA33 1K
+5V
QA09 C945
QA10 A733
RA43 10
RA49 2.2K
RA44 100
ICA06 4013
GND VCC Q D CK CLR PR
RA48 10K
RA52 10K
DA25 1N4148
RA47 26.1K 1/4W M.F
CA30 470P
QA11 C945
RA51 10K
NOTE :
NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105'C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%
MODEL P95f
CIRCUITRY POWER
ViewSonic Corporation
SHEET 6 OF 7
REV: 00
PCB REV: 02
DATE 10-05-00
APPROVED BY:
CHECKED BY:
PCB P/N 0170-2240-0332
ECN NO APCN00100001
FILE: P95F-P0.SCH P95F-M2.PCB


A
B
C
D
E
F
G
H
I
1
2
3
4
5
6
7
8
9
+12V
QX06
C1213
RX07
470
CX05
.1u
50V
QX05
A673
RX09
27
1/4W
CX07
.1u
50V
WX02
QX08
C1213
RX10
27
1/4W
QX07
A673
CX06
.1u
50V
RX08
470
QX09
C1213
RX11
470
CX08
.1u
50V
QX10
A673
RX14
27
1/4W
CX10
.1u
50V
WX03
QX11
C1213
RX13
27
1/4W
QX12
A673
CX09
.1u
50V
RX12
470
QX01
C1213
RX03
470
CX04
.1u
50V
QX02
A673
RX05
27
1/4W
CX02
.1u
50V
WX01
QX04
C1213
RX06
27
1/4W
QX03
A673
CX03
.1u
50V
RX04
470
QX16
C1213
RX16
470
CX12
.1u
50V
QX15
A673
RX18
27
1/4W
CX13
.1u
50V
WX04
QX13
C1213
RX17
27
1/4W
QX14
A673
CX11
.1u
50V
RX15
470
16
15
14
13
12
11
10
9
TDA8444
ICX01
CX01
100u
16V
RX01
100
RX02
100
SDA
SCL
SHEET-5
SHEET-5
NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%
MODEL
P95f
CIRCUITRY
CORNER PURITY
ViewSonic
Corporation
SHEET
7 OF 7
REV:
00
PCB REV:
02
APPROVED BY:
CHECKED BY:
PCB P/N
0174-2240-0332
ECN NO
APCN00100001
FILE:
P95F-T0.SCH
P95F-M2.PCB
DATE
10-05-00



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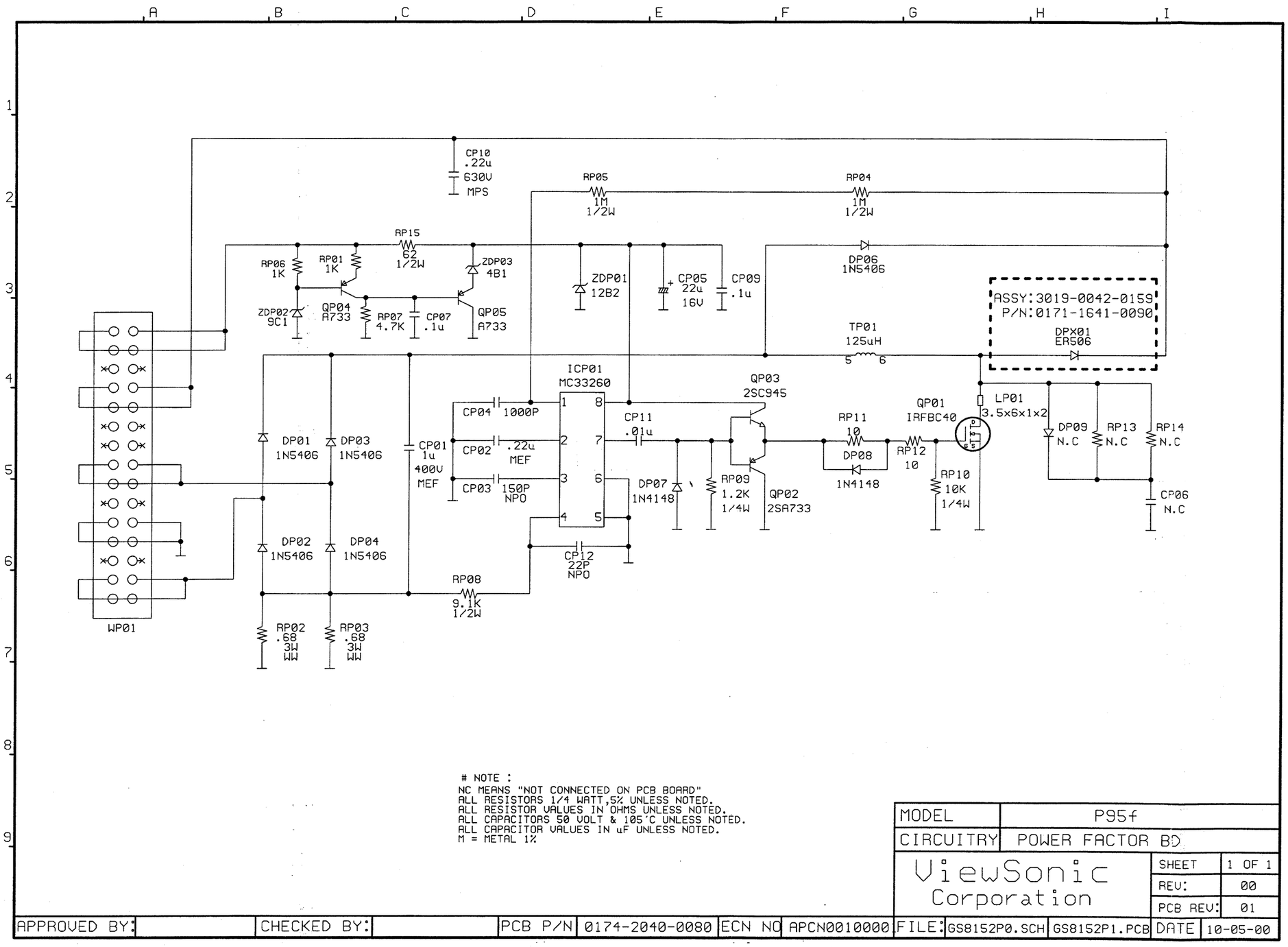
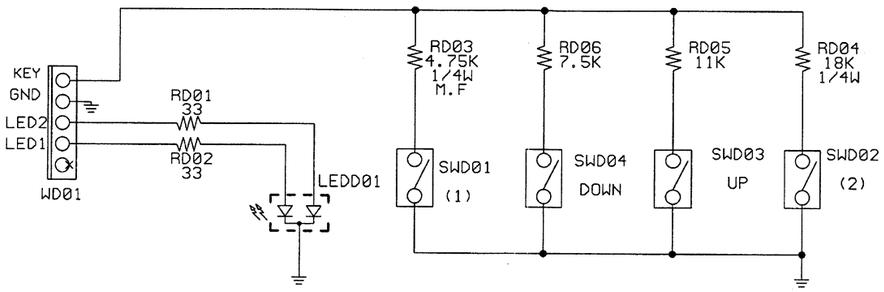


NOTE :
NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/4 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105'C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

MODEL	P95f
CIRCUITRY	POWER FACTOR BD
ViewSonic Corporation	SHEET 1 OF 1
	REV: 00
	PCB REV: 01

APPROVED BY:		CHECKED BY:		PCB P/N	0174-2040-0080	ECN NO	APCN0010000	FILE:	GS8152P0.SCH	GS8152P1.PCB	DATE	10-05-00

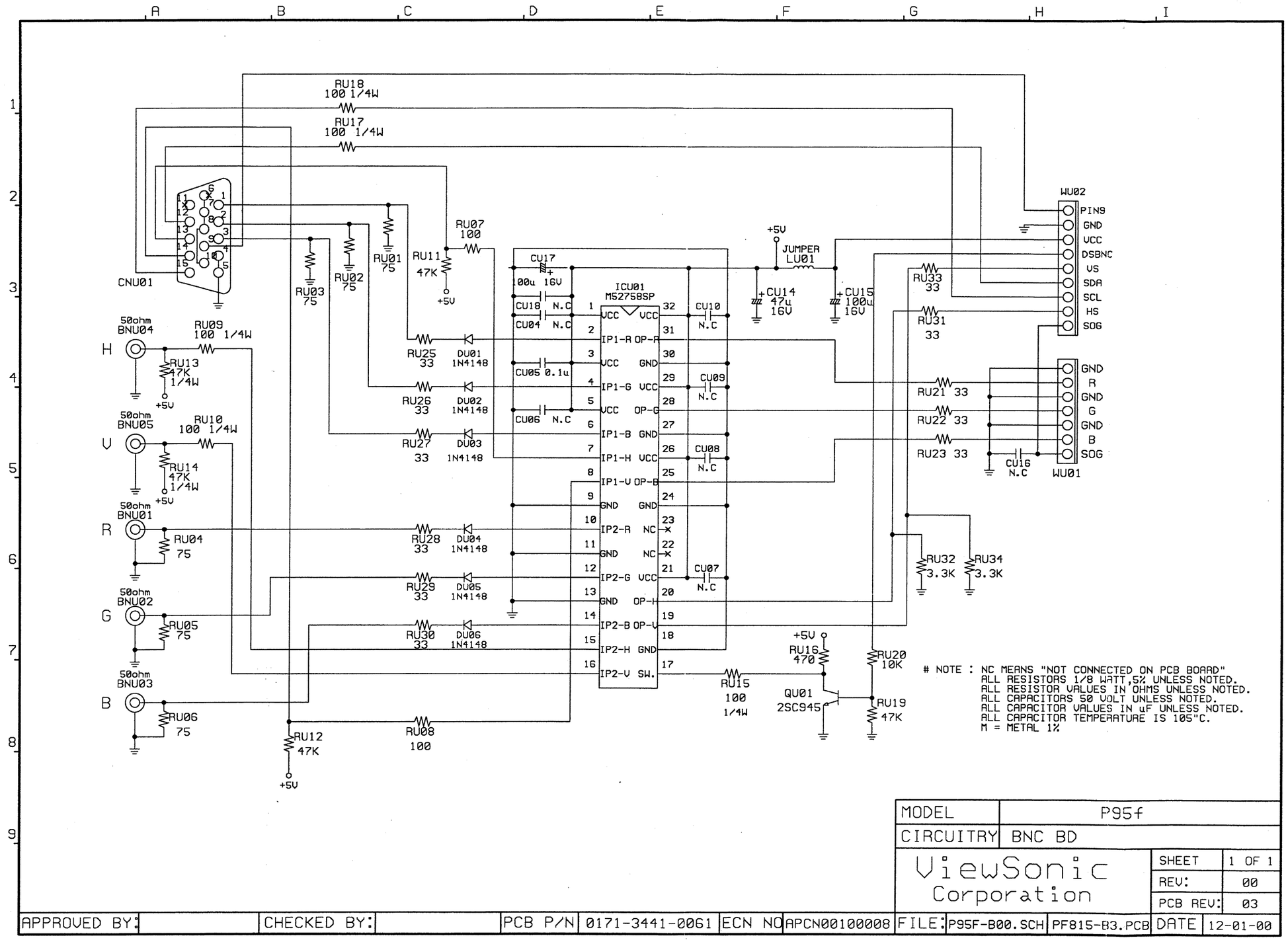


P/N:0170-1740-0120

NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT & 105"C UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
M = METAL 1%

APPROVED BY:		CHECKED BY:		PCB P/N	0170-1740-0120	ECN NO	ECN00-7001	FILE:	VG21-D00.SCH	P775D000.PCB	DATE 08-07-00

MODEL	P95f
CIRCUITRY	DISPLAY BD.
ViewSonic Corporation	SHEET 1 OF 1
	REV: 00
	PCB REV: 00


A B C D E F G H I
1 2 3 4 5 6 7 8 9
RU18 100 1/4W
RU17 100 1/4W
CNU01
RU01 75
RU02 75
RU03 75
RU11 47K
RU07 100
+5V
CU17 100u 16V
CU18 N.C
CU04 N.C
CU05 0.1u
CU06 N.C
ICU01 M52758SP
1 VCC
2 IP1-R
3 VCC
4 IP1-G
5 VCC
6 IP1-B
7 IP1-H
8 IP1-V
9 GND
10 IP2-R
11 GND
12 IP2-G
13 GND
14 IP2-B
15 IP2-H
16 IP2-V
32 VCC
31 OP-R
30 GND
29 VCC
28 OP-G
27 GND
26 VCC
25 OP-B
24 GND
23 NC
22 NC
21 VCC
20 OP-H
19 OP-V
18 GND
17 SW.
CU10 N.C
CU09 N.C
CU08 N.C
CU07 N.C
JUMPER LU01
CU14 47u 16V
CU15 100u 16V
RU33 33
RU31 33
RU21 33
RU22 33
RU23 33
CU16 N.C
WU02
PIN9
GND
VCC
DSBNC
VS
SDA
SCL
HS
SOG
WU01
GND
R
GND
G
GND
B
SOG
50ohm BNU04
H
RU09 100 1/4W
RU13 47K 1/4W
50ohm BNU05
V
RU10 100 1/4W
RU14 47K 1/4W
50ohm BNU01
R
RU04 75
50ohm BNU02
G
RU05 75
50ohm BNU03
B
RU06 75
RU25 33
DU01 1N4148
RU26 33
DU02 1N4148
RU27 33
DU03 1N4148
RU28 33
DU04 1N4148
RU29 33
DU05 1N4148
RU30 33
DU06 1N4148
RU12 47K
RU08 100
RU32 3.3K
RU34 3.3K
RU16 470
RU20 10K
QU01 2SC945
RU19 47K
RU15 100 1/4W
NOTE : NC MEANS "NOT CONNECTED ON PCB BOARD"
ALL RESISTORS 1/8 WATT,5% UNLESS NOTED.
ALL RESISTOR VALUES IN OHMS UNLESS NOTED.
ALL CAPACITORS 50 VOLT UNLESS NOTED.
ALL CAPACITOR VALUES IN uF UNLESS NOTED.
ALL CAPACITOR TEMPERATURE IS 105"C.
M = METAL 1%
MODEL P95f
CIRCUITRY BNC BD
ViewSonic Corporation
SHEET 1 OF 1
REV: 00
PCB REV: 03
APPROVED BY:
CHECKED BY:
PCB P/N 0171-3441-0061
ECN NO APCN00100008
FILE: P95F-B00.SCH PF815-B3.PCB
DATE 12-01-00

Chapter 13 PCB Layouts

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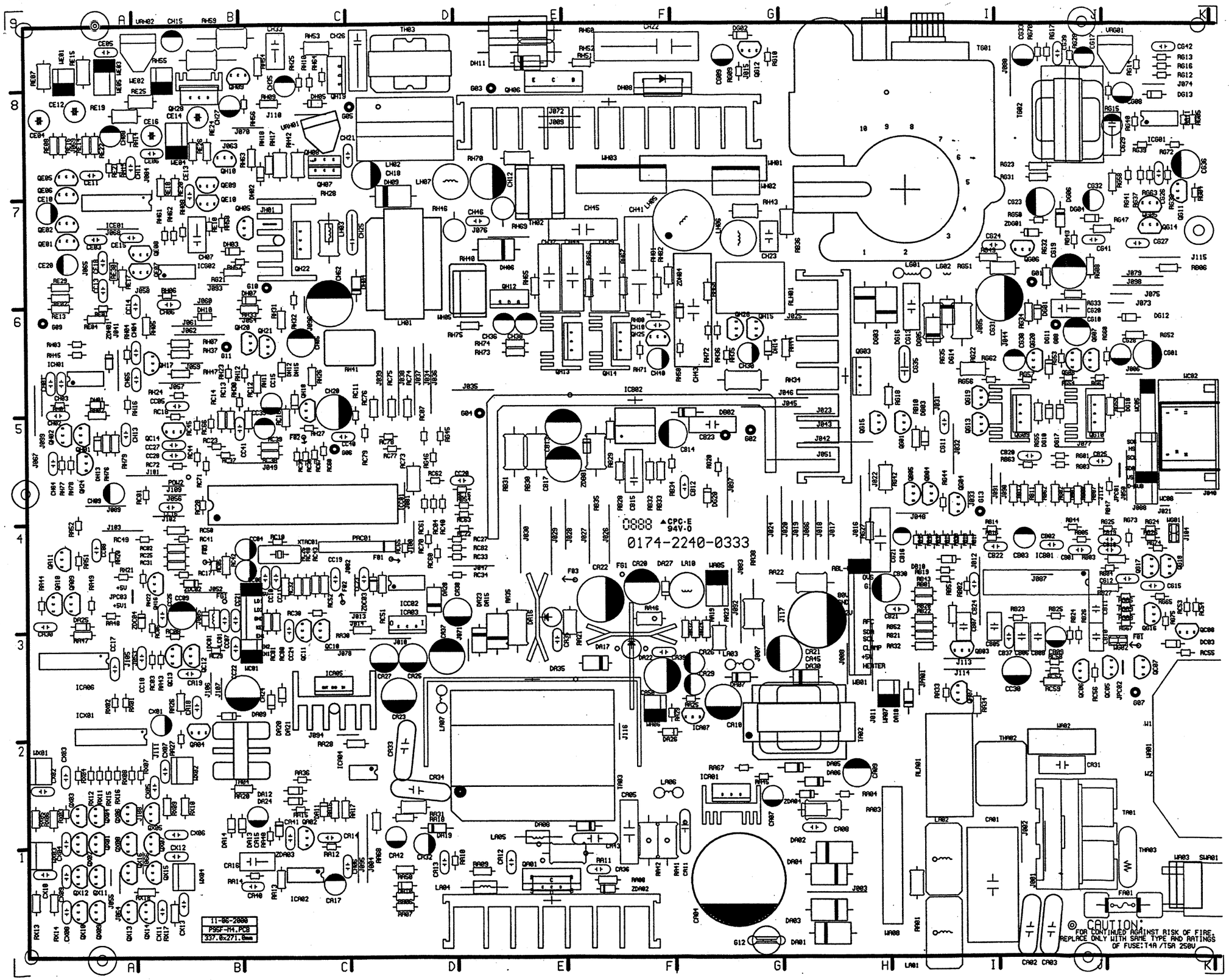
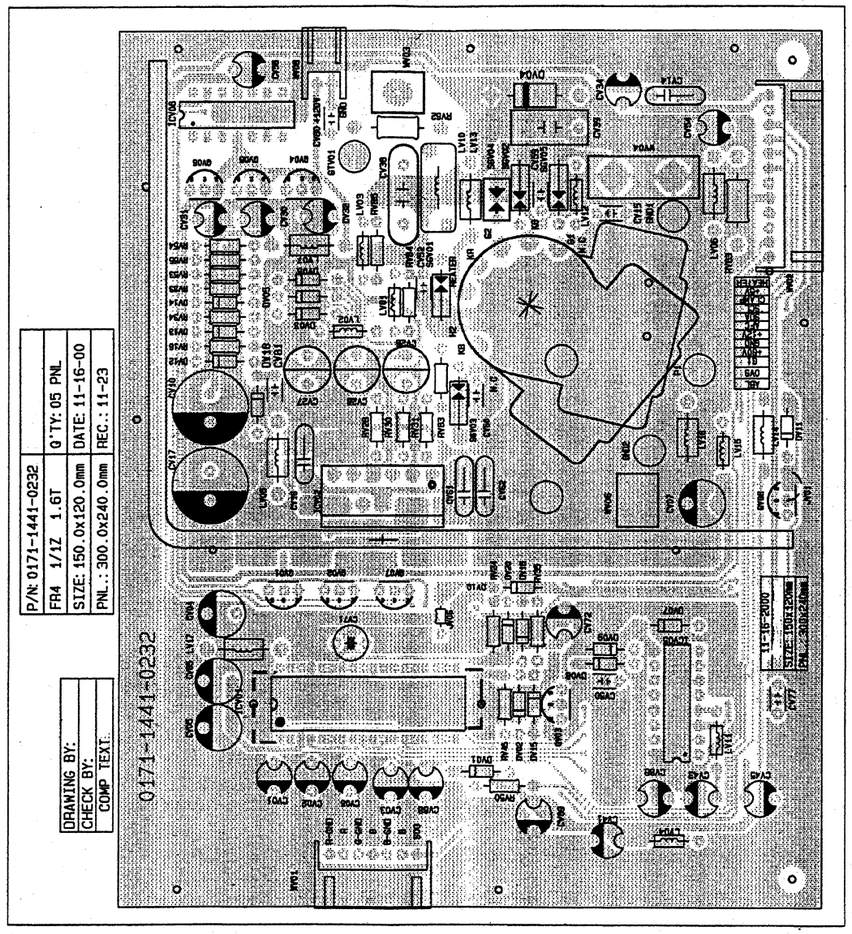
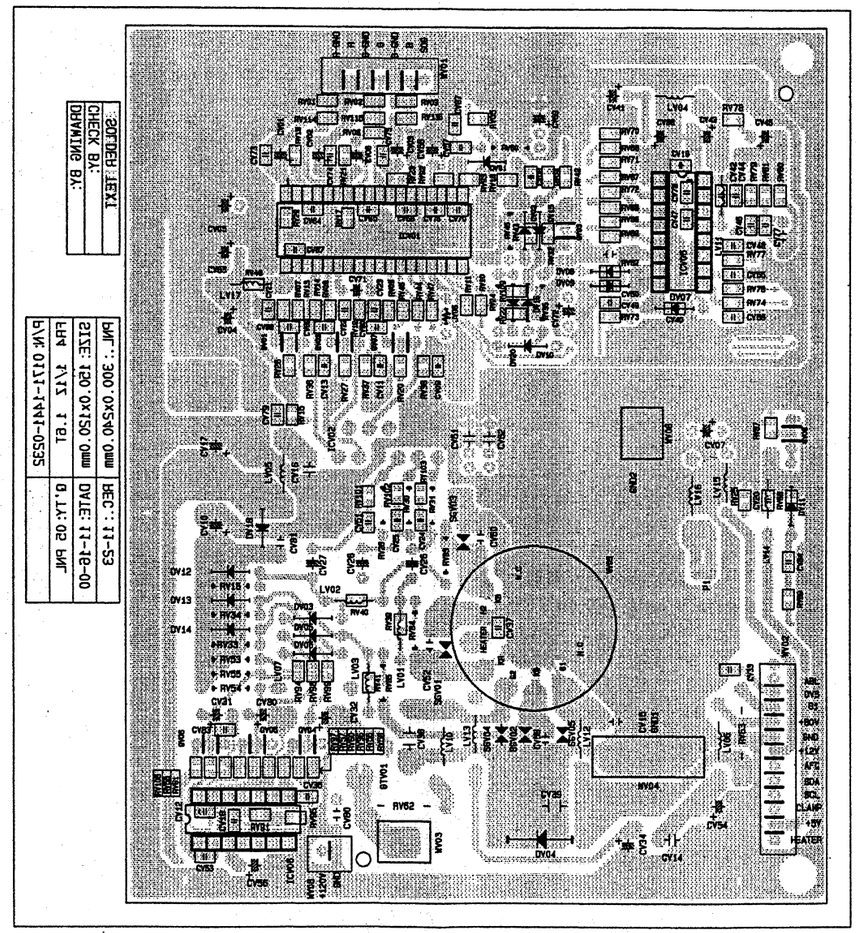

0888 ▲CPC·m 94V-0
0174-2240-0333
11-06-2000
P95F-M4.PCB
337.6x271.0mm
CAUTION:
FOR CONTINUED AGAINST RISK OF FIRE,
REPLACE ONLY WITH SAME TYPE AND RATINGS
OF FUSE:T4A /TSA 250V





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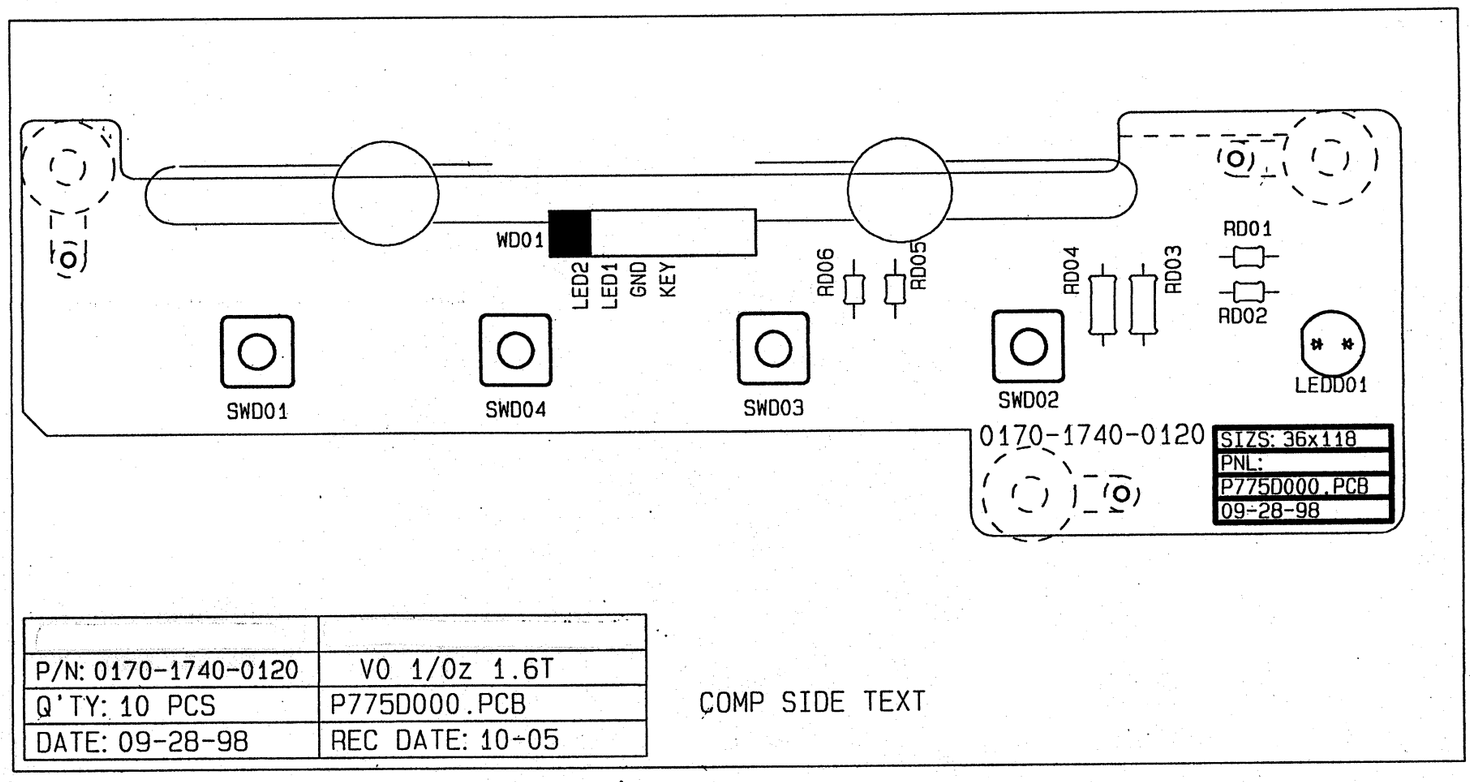
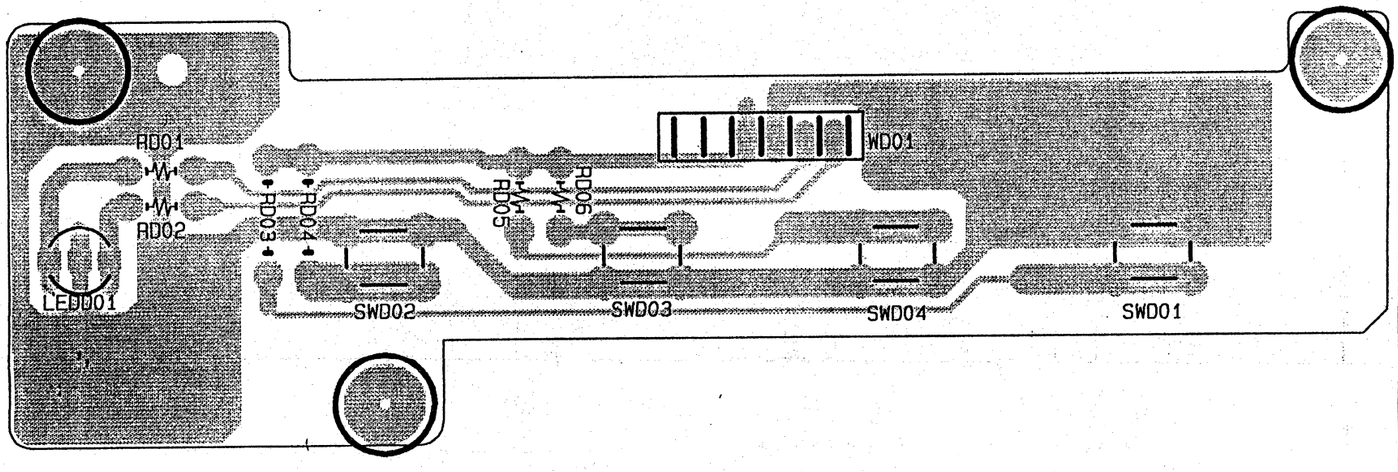


P/N: 0170-1740-0120	V0 1/0z 1.6T
Q'TY: 10 PCS	P775D000.PCB
DATE: 09-28-98	REC DATE: 10-05

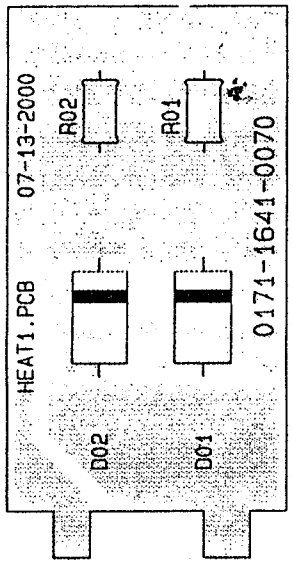
COMP SIDE TEXT

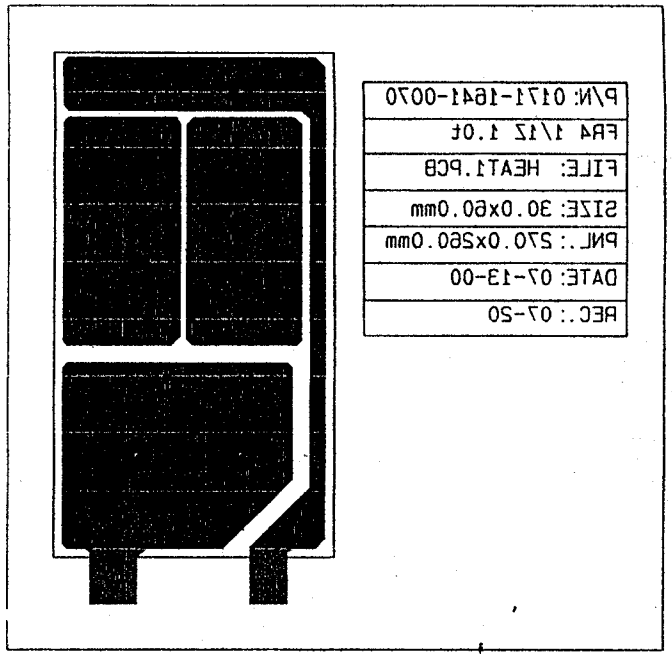


P/N: 0170-1740-0120	V0 1/0z 1.6T
Q'TY: 10 PCS	P775D000.PCB
DATE: 09-28-98	REC DATE: 10-05

SSOLDERSSIDE TEXT

P/N: 0171-1641-0070
FR4 1/1Z 1.0t
FILE: HEAT1.PCB
SIZE: 30.0x60.0mm
PNL.: 270.0x260.0mm
DATE: 07-13-00
REC.: 07-20



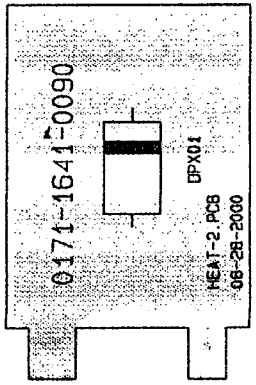


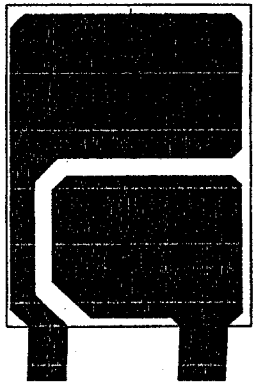
P/N: 0171-1641-0070
FR4 1/1Z 1.0t
FILE: HEAT1.PCB
SIZE: 30.0x60.0mm
PNL.: 270.0x260.0mm
DATE: 07-13-00
REC.: 07-20

Confidential - Do Not Copy

P/N: 0171-1641-0090
FILE: HEAT-2.PCB
Mate: FR4 1/1Z 1.0t
SIZE: 26.0x40.0mm
DATE: 08-15-00
REC.: 08-22-00

COMP TEXT



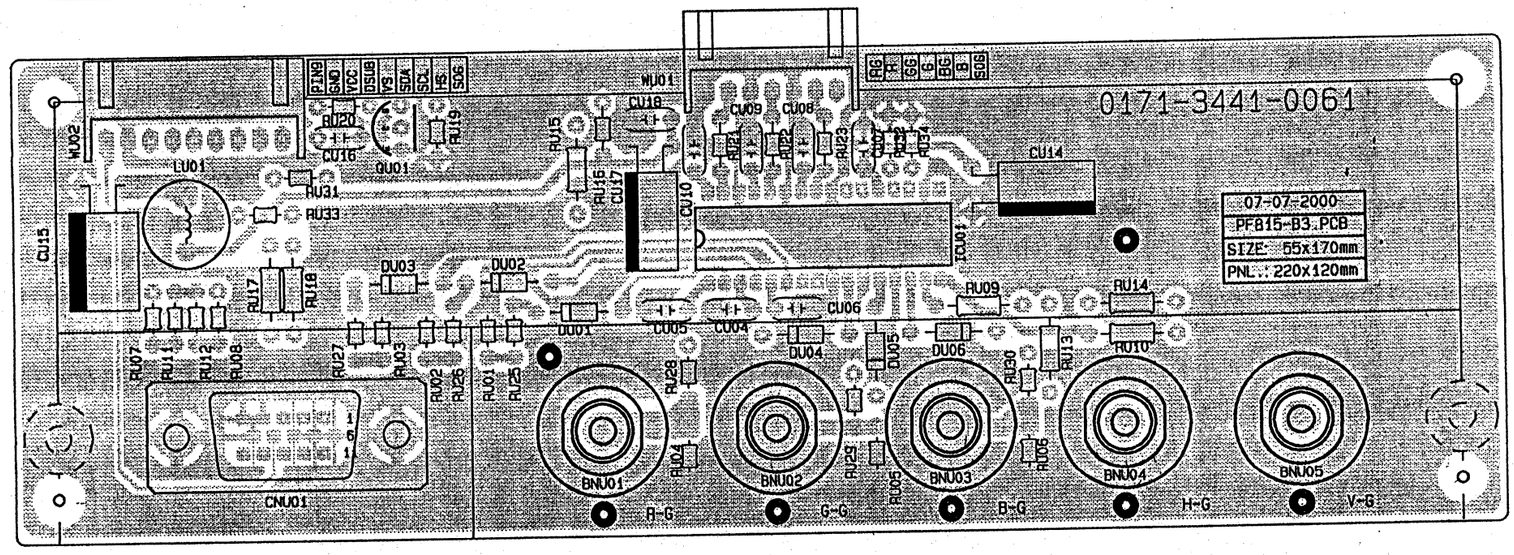


P/N: 0171-1641-0090
FILE: HEAT-2.PCB
Mate: FR4 1/1Z 1.0t
SIZE: 26.0x40.0mm
DATE: 08-15-00
REC.: 08-22-00

SOLDER TRACE

0171-3441-0061	SIZE: 55x170mm
	PNL.: 220x170mm
FR4 1/1z 1.6t	DATE: 07-07-00
Q'TY: 100 PNL	REC.: 07-15-00

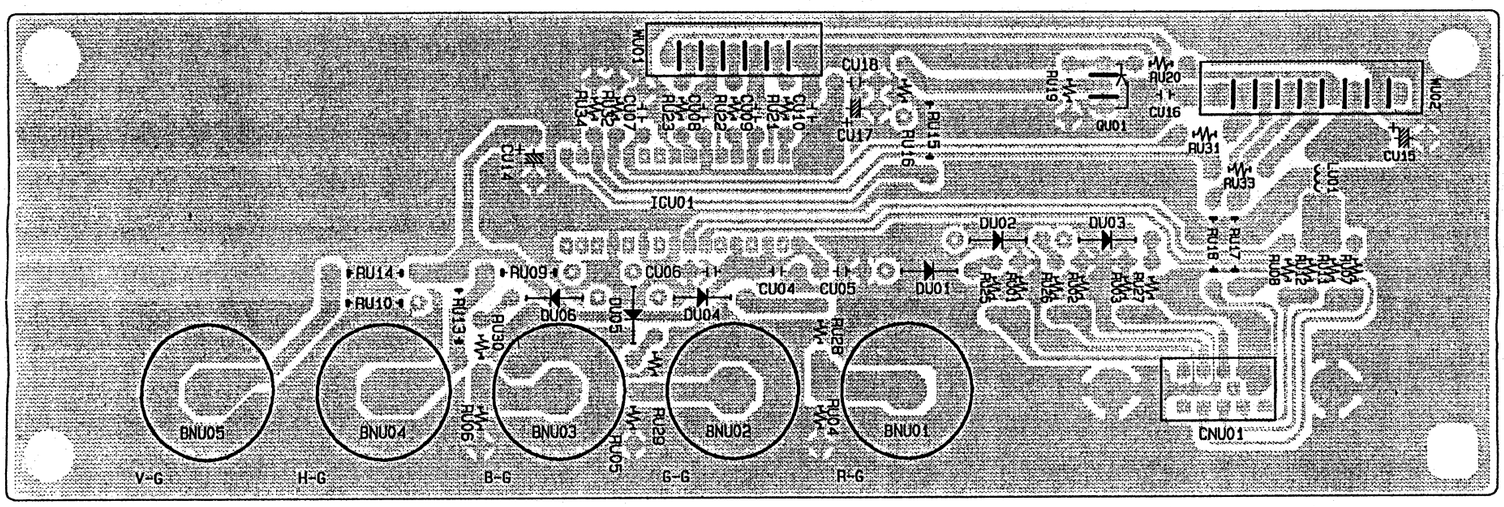
COMP SIDE TEXT



Confidential - Do Not Copy

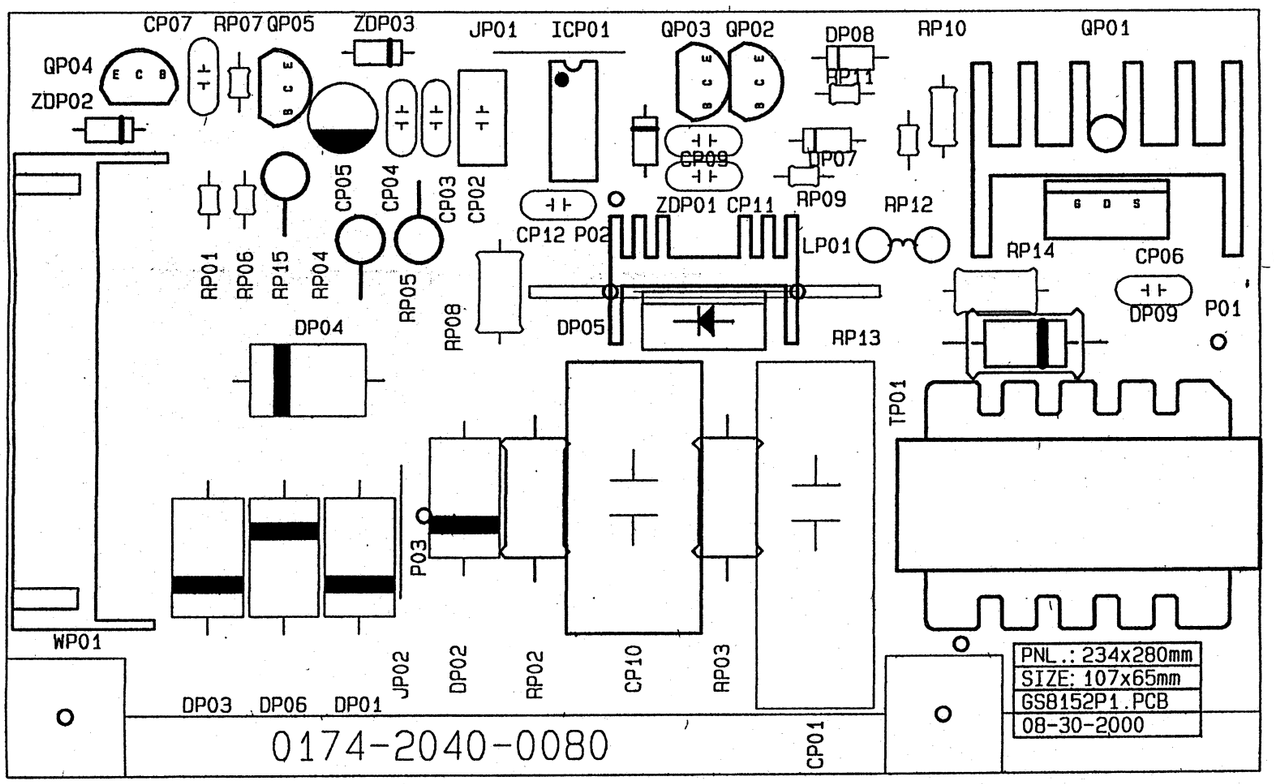
0171-3441-0061 | SIZE: 55x170mm
PNL.: 220x170mm | |
FR4 1/1z 1.6t | DATE: 07-07-00
Q'TY: 100 PNL | REC.: 07-15-00

SOLDER TEXT



ViewSonic Corporation

P/N: 0174-2040-0080	K1 1/0Z 1.6T
	Q'TY: 6 PNL
SIZE: 107.0x 65.0MM	DATE: 08-30-00
PNL.: 234.0x280.0MM	REC.: 09-06



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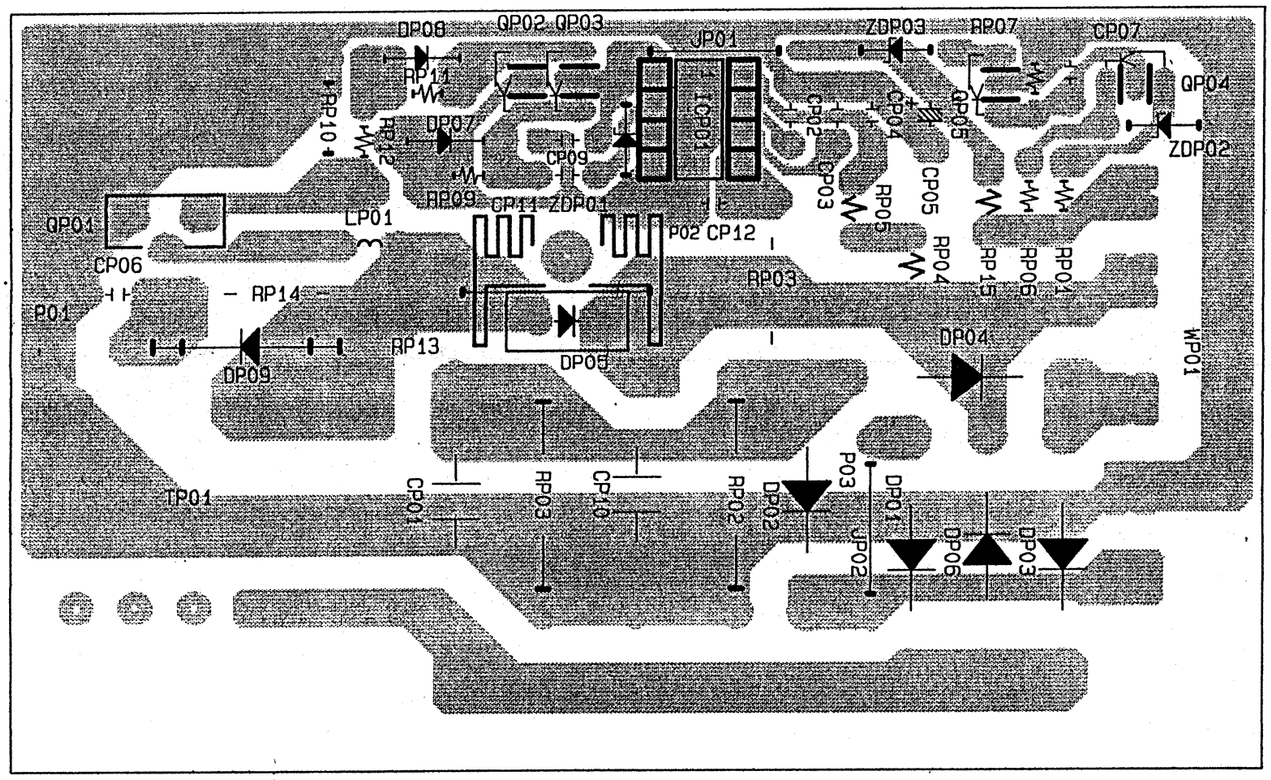
P/N: 0174-2040-0080	K1 1/0Z 1.6T
	Q'TY: 6 PNL
SIZE: 107.0x 65.0MM	DATE: 08-30-00
PNL.: 234.0x280.0MM	REC.: 09-06



Chapter 14 Exploded View and Parts List

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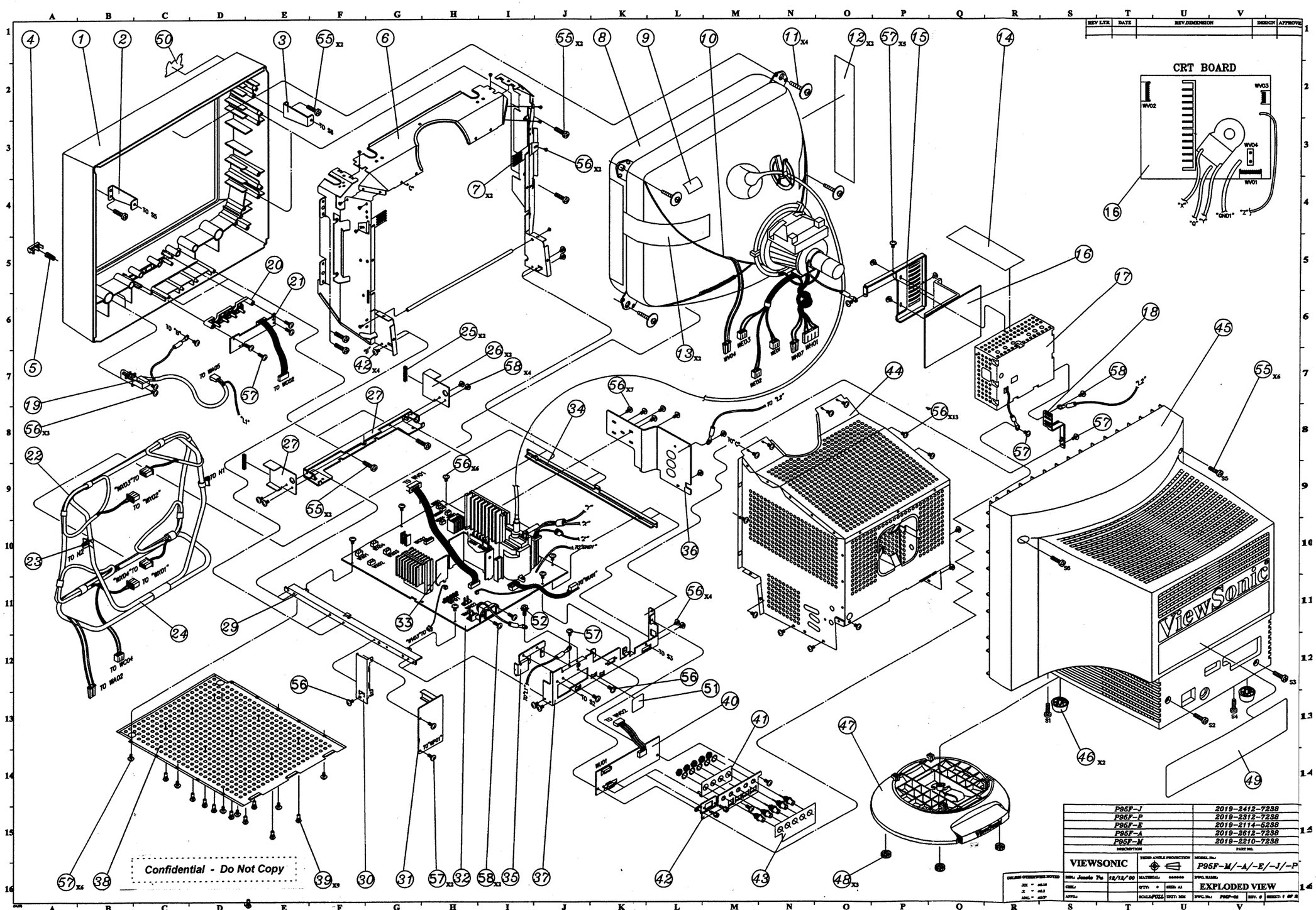
CRT BOARD
WV03
WV02
WV04
WV01
"X"
"GND1"
"Z"
"G"
REV LTR.
DATE
REV.DIMENSION
DESIGN
APPROVE
Confidential - Do Not Copy
ViewSonic
P95F-1
P95F-P
P95F-E
P95F-A
P95F-M
2019-2412-7238
2019-2312-7238
2019-2114-6238
2019-2612-7238
2019-2210-7238
PART NO.
VIEWSONIC
THIRD ANGLE PROJECTION
MODEL No.:
P95F-M/-A/-E/-J/-P
DWG. NAME:
EXPLODED VIEW
DWG. No.: P95F-UM
REV. 0
SHEET 1 OF 2

REV LTR	DATE	REV.DIMENSION	DESIGN	APPROV
1				

ITEM	PART NO.	DESCRIPTION	QTY
1	1701-0103-2050	BEZEL P95F G7397 PC+ABS	1
2	1712-0100-0510	BACK COVER BRACKET RIGHT/AT1099DA,P795	1
3	1712-0100-0520	BACK COVER BRACKET LEFT/AT1099DA,P795	1
4	1701-0402-2000	POWER KNOB G7397 PF775	1
5	1712-0700-0600	SPRING /PT771/P795	1
6	3019-0042-0319	SHIELDING ASS'Y P95F	1
7	1712-0600-0011	COPPER CLAW	2
8	0210-0190-1655	CRT 19" M46LRY21X21 MIT. .26MM	1
9	1936-1500-0100	FDA WARNING LBL AT897D/F/C	1
10	0460-2202-0220	BRAID 0.12/112C 1015#18 920mm+core	1
11	1724-3705-2502	SCREW,BPCTW#5.0*25L.ZN-CC	4
12	1947-1700-1500	SHIELDING AL.TAPE(270.0*50.0)	2
13	1947-1700-0200	AL. TAPE 230MMX50MM	2
14	1947-1700-0280	AL. APE 50MMX160MM	1
15	1712-0300-0030	VIDEO BD SHIELDING	1
16	3019-0182-0151	ASS'Y VIDEO BD P95F,P225F	1
17	1712-0500-0162	CRT BD SHIELDING-A	1
18	1712-0100-4600	VIDEO BD BRACKET AT1097F/P795/PT771	1
19	0220-2020-0261	SW PUSH BOTTON SFDLD11E7U-AA	1
20	1701-0402-100X	FUNCTION KNOB G7397 PF775	1
21	3019-0072-0156	ASS'Y DISPLAY BD PF97	1
22	0333-1900-0770	PURITY 19" 77.5ohm 150Ts+PURITY CORNER	1
23	1701-1500-0010	WIRE CLIPS NYLON 66(UL)	1
24	0330-1900-0570	DEGAUSSING 19" 16 ohm 0.55x90Ts	1
25	1701-1600-0100	MOVABLE BUSHINGS/US-12.31	2
26	1712-0100-0620	CRT HOLDER LEFT /P795	1
27	1712-0100-4400	CRT HOLDER RIGHT /P795	1
28	1712-0100-0590	CHASSIS BKT FRONT	1
29	1712-0100-016X	CHASSIS BKT RIGHT	1
30	1712-0100-1490	POWER FACTOR BRACKET	1
31	3021-0042-0157	ASS'Y POWER FACTOR BD GS815-2	1
32	3019-0212-0160	ASS'Y MAIN/PWR/CTRL BD P95F	1
33	3019-0022-0159	ASS'Y DIODE OPTION BD P95F,P220F FOR DA1	1
34	1712-0100-015X	CHASSIS BKT LEFT	1

ITEM	PART NO.	DESCRIPTION	QTY
35	1712-0100-0470	AC BKT AT1099DA	1
36	1712-0300-023X	SHIELD PLATE FOR EMI	1
37	1712-0100-320X	CHASSIS BKT REAR/AT897D	2
38	1712-0500-0172	BOTTOM SHIELDING AT1097FB,AT1099DB	1
39	1701-1500-0900	SPACER SUPPORTS/FCB-10	9
40	3019-0022-0118	ASS'Y BNC BD P95F	1
41	1712-0500-2000	GROUNDING PLATE	1
42	1712-0100-4300	BNC BRACKET AT897/PT771/P795	1
43	1701-0800-1900	BNC PLATE AT897/PT771/P795	1
44	1712-0300-0062	SHIELDING COVER	1
45	1701-0200-603X	BACK COVER PF790 PC+ABS D-SUB & BNC	1
46	1701-1000-0100	PLASTIC FOOT /GL-24H	2
47	3021-0062-0301	BASE (USB) ASS'Y G7397 PC+ABS	1
48	1701-1000-0200	BASE FOOT 18.8X5.8T	3
49	1936-1100-2190	B/C LBL P95F	1
50	1936-1000-0100	V. SONIC LOGO (AL.PLATE)	1
51	1701-0800-0080	PALTE PT775-6	1
52	1724-3804-0802	SCREW,PBATW,M4*8L,Zz-Cc	1
55	1724-2304-1402	SCREW,BBC,M4*14L,Zn-Cc	14
56	1724-2603-0602	SCREW,BTCW,M3*6L,Zn-Cc	-
57	1724-2603-0802	SCREW,BTCW,M3*8L,Zn-Cc	-
58	1724-2603-1002	SCREW,BTCW,M3*10L,Zz-Cc	-

A95F-P	2019-2312-7238
A95F-J	2019-2412-7238
A95F-E	2019-2114-5238
A95F-A	2019-2612-7238
A95F-M	2019-2210-7238
DESCRIPTION	PART NO.

ViewSonic Corporation

THIRD ANGLE PROJECTION

MODEL No.: P95F-M/-A/-E/-J/-P

DWG. NAME: 19" CASE ASS'Y

DWG. No.: P95F-CA | REV. 01 | SHEET: 2 OF 2

DSN.: Jessie Yu	12/12/'00	MATERIAL:	******	
CHK.:		Q'TY: *	SIZE: A4	
APPD.:		SCALE: *:*	UNIT: MM	

UNLESS OTHERWISE NOTED
.XX = ±0.10
.X = ±0.2
ANG. = ±1/2°

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(01.09)